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ABSTRACT

This report examines how state welfare-to-work programs have affected young children since the 1996 welfare reform act, which moved millions of women into low-wage jobs. Researchers followed a sample of 948 mothers and young children for 2-4 years after the women entered new welfare programs in California, Connecticut, and Florida. After interviews with these mothers, assessments of their children's development, and visits to homes and child care settings, several findings emerged. Many women had moved into low-wage jobs. Though their total income had risen significantly, most still lived below the poverty line. Related measures of economic wellbeing showed little improvement. For example, almost one-fifth of mothers had recently cut the size of meals because they did not have enough money to buy more food. The magnitude of income gains was too weak to improve home environments or allow women to move to better neighborhoods. Mothers were spending less time with their children as they went out to work. They displayed twice the national rate of clinical depression. Many children had moved into new child care centers and preschools. Those who move to center-based programs displayed significantly stronger cognitive and school readiness skills than children who remained in home-based programs. Measures and national norms are appended. (Contains 150 endnotes.) (SM)

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New Lives for Poor Families?

Mothers and Young Children Move through Welfare Reform

Technical Report

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Wave 2 Findings—The Growing Up in Poverty Project California, Connecticut, and Florida

University of California, Berkeley
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Stanford University
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New Lives for Poor Families?

Policy leaders in Washington and the states are engaging a new debate over an old question: How can society best aid jobless mothers and enrich their children's lives?

The dramatic reform of family welfare policies in 1996, aided by robust economic growth, has moved millions of women into low-wage jobs. But how to build from this success?

Would stiffer work requirements raise more families above the poverty line? Could educational opportunities for mothers strengthen parenting? How adequate is the current supply and quality of child care?

As these and other policy options are debated, one fact is clear: We know surprisingly little about how state welfare-to-work programs have touched the lives of young children since 1996—and perhaps altered the home and child care settings in which they are now being raised.

This report helps to fill that gap. Our project team followed an initial sample of 948 mothers and preschool-age children for two to four years after the women entered new welfare programs—in California, Connecticut, and Florida. After two rounds of interviews with mothers, assessments of their children's development, and visits to homes and child care settings, these major findings have emerged:

- Many women have moved into low-wage jobs, and their total income has risen significantly. Yet their income remains at just over $12,000 annually, with most still living below the poverty line.
- Related measures of economic well-being show little improvement. For example, almost one-fifth of all mothers recently cut the size of meals because they didn't have enough money to buy more food, three times the rate reported by all adults nationwide. The average mother reported about $400 in savings.
- The magnitude of income gains, thus far, is too weak to improve home environments or allow women to move into better neighborhoods. Mothers are spending less time with their pre-school-age children as they leave home for jobs. No consistent gains were detected in pro-literacy parenting practices, like reading with their children, establishing dinner-time or bed-time routines, sensitivity toward the child, or for 49 other measures of home qualities.
- Participating mothers displayed twice the rate of clinical depression, two in every five, compared to the general population. Maternal depression sharply depresses their young children's development.
- Many children moved into new child care centers and preschools. Lower-performing children who entered center-based programs displayed significantly stronger gains in cognitive skills and school readiness--moving about 3 months ahead of the children who remained in home-based settings. This positive relationship was significantly stronger for children who attended higher quality centers.

New Lives for Poor Families?

Mothers and Young Children Move through Welfare Reform

The Growing Up in Poverty Project — Wave 2 Findings
California, Connecticut, and Florida

Technical Report

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Bruce Fuller, Berkeley
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Jan McCarthy, Tampa

SECTION 1

MAJOR FINDINGS

How are the lives of mothers and children changing?

The 1996 Policy Revolution: Mothers with Young Children Go to Work

An ambitious national experiment began in 1996 — making public aid to poor families contingent upon work — when President Clinton signed the welfare reform bill, officially called the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). Several states, during the prior 25 years, had tried varying combinations of rules and incentives to move parents — mainly single mothers with school-age children — from welfare to work. But the 1996 reforms set in place a firm and largely uniform social contract: government will help your family if you find a job.

Under the new cash aid program, Temporary Assistance for Needy Families (TANF), most women are now required to enter work activities quickly and eligibility for cash aid is time limited.[1] At the same time, the Congress strengthened incentives for parents to stay in the workforce by expanding work supports, like child care, extending child health insurance to the working poor, and boosting refundable tax credits for low-wage workers.

During the lively debate over whether Washington should "end welfare as we know it," many expressed concerns regarding the potential effects that these wide ranging reforms might have on children—especially *young children* whose mothers had generally not been subject to stiff work requirements prior to 1996.[2] States could now require mothers to work when their new-born turns 3 months of age. And about 60% of all women receiving cash aid have at least one child under 6 years of age.

The Congress and President Bush have begun to review the 1996 reforms. This exercise in Washington will be followed by reassessments and policy adjustments across the land, advanced by governors and state legislatures.[3] The new debate over family policy turns on issues that will directly touch the lives of young children: Should Washington require states to raise work requirements placed on mothers? Would additional child care support ease mothers' transition from welfare to work? Might federal initiatives to strength the family institution improve home environments for children?[4]

As policy makers weigh these future options, we should be learning from the past. Our research aims to inform the following questions, each related to how mothers and young children have fared since entering welfare-to-work programs after 1996:

- Do single mothers earn more and become less reliant on cash aid as they move into the labor force? And does net income change with sufficient magnitude to raise the quality of children's home and child care environments?
- Does more time at work reshape the amount and quality of time that mothers spend with their young child? How do changes at work and home affect maternal stress and mental health over time?
- As more young children move into new child care arrangements—from being with kin members to entering preschools—what kind of care are young children experiencing?
- Do these changes in children's daily settings advance—or constrain—youngsters' cognitive growth, pre-literacy skills, and social development?

This final question holds enormous implications: If children's daily settings and early learning are not advanced under this huge family-policy experiment, then it's difficult to argue that welfare reform—as one strategy for aiding low-income parents—is reducing the inter-generational inheritance of family poverty.

These are the persistent questions that have motivated the Growing Up in Poverty Project, a collaborative study codirected by researchers based at Berkeley, Yale, Stanford, and Teachers College, Columbia University. Although they are long-term questions that will require many years of research to fully inform, the present report illuminates how single mothers with preschool-aged children are faring between two and four years after entering welfare-to-work programs in three states—California, Connecticut, and Florida.

The Growing Up in Poverty Project

We drew a sample of women spread across five counties in three states, beginning in the spring of 1998, working in cooperation with state and local officials. Each of the 948 mothers had applied to her state's new welfare-to-work program and was deemed eligible for cash aid. Each initially reported that she was not married or living with a spouse and had at least one child between 12-42 months of age.

Women in California and Florida had recently enrolled in, or were transferring from AFDC to, their state's work-first program. In Connecticut, the participating mothers had been randomly assigned in 1996 or 1997 to the new Jobs First program, or to the control group that followed the old AFDC rules.

We conducted wave 1 interviews that covered a variety of topics related to employment, economic well-being, and home environments. We also visited a majority of their child care settings, gauged the quality on different dimensions, and assessed children's early development.[5]

These initial interviews with mothers in California and Florida were conducted two to six months after they had entered a work-first program. In Connecticut, the wave 1 interviews were conducted 18 months after mothers had entered the program experiment. In all three states, our visits to their child care settings were conducted during the subsequent six months.[6] Section 3 details the two rounds of data collection, wave 1 conducted largely in 1998, and wave 2 data collected primarily in the year 2000.

In February 2000 we reported findings from this 1998 wave of data collection in a report entitled, *Remember the Children: Mothers Balance Work and Child Care under Welfare Reform.* This descriptive report and subsequent research papers have amplified several findings stemming from the wave 1 data. Wave 1 highlights included:

- Over half of all women were finding jobs soon after entering these work-first programs. Median hourly wages ranged from $5.45 among women in Florida to $7.24 in Connecticut.
- Many women, including a sizable share of jobless mothers, used a child care provider at least 10 hours per week. Wide variation was observed among the three states in the share of mothers who selected center-based programs and successfully drew child care subsidies.
- Many children from sampled families had moved into child care settings that displayed low quality in terms of limited learning materials, a lack of structured or positive interactions with caregivers, and activities that would not likely contribute to robust child development.
- Children continued to grow up in homes with multiple sources of stress and uncertainty. One-fifth of the Florida mothers, for example, lived with another adult who had an alcohol or drug abuse problem.
- Children's rates of early learning were hampered by uneven parenting practices and high rates of emotional depression among many mothers, although these realities could not be causally linked to welfare-to-work programs.
- Women reported widely varying levels of social support. About one-sixth of the Connecticut mothers lived with another adult who helped support the focal child, as did up to one-third of the Florida mothers. Yet four in ten women reported they "felt alone as a parent."
- We also estimated that at least 1 million preschool-age children had entered new child care settings—including formal centers or home based arrangements—between 1996 and 1999, due to the push on mothers with young children to enter jobs or mandated work activities.

New Findings from Families: Two to Four Years after Entering Welfare-to-Work Programs

Building from this baseline information, we posed the same interview questions at wave 2 that were asked at wave 1. We visited mothers' homes to pursue sensitive interview topics and to assess focal children's cognitive and social development. The wave 2 collection occurred between 18 and 24 months following the wave 1 interviews. We successfully maintained contact and completed interviews with 706 families, or 78% of the family sample that was brought forward from wave 1.[7]

During the year 2000, when the wave 2 home visits were collected, the average child was just over 4 years-old, compared to just under 2½ years old at wave 1. Figure 1.1 displays our timetable for data collection activities.

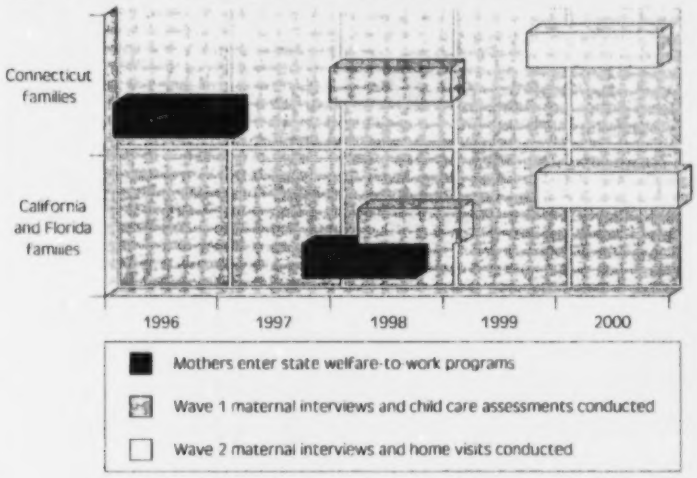
The present *Wave 2 Technical Report* details our findings from these most recent maternal interviews, home visits, and child assessments for the 706 families that remain in the study. We first present results for the Connecticut families (Section 4), then turn to the family sample from California and Florida (Section 5).

We interviewed the Connecticut mothers, at wave 2, three years after they had either entered that state's work-first program, called Jobs First, or been assigned to the control group. In contrast, the wave 2 interviews and home visits in California and Florida occurred up to two years after mothers entered work-first programs.

The Connecticut data stem from a randomized experiment that allows for detection of specific effects that may stem from the mothers' participation in the welfare-to-work experiment. The California and Florida data are longitudinal in nature: we focus on change in the lives of mothers and children over the two-year period. When we observe significant levels of change over time we can not attribute this change to mothers' participation in welfare-to-work programs, but we are observing change or continuity as mothers' experience these new programs.

Our wave 2 findings are reported under six topical areas: (1) the mother's employment, income, and welfare status, (2) household composition, rates of marriage, social support, and forms of conflict and stress inside homes, (3) the mother's time with her young child, parenting practices, and levels of affection and emotional attachment to the child, (4) maternal and child health, and access to health insurance, (5) types of

Figure 1.1 Family sampling and data collection timeline



Notes: The wave 1 interviews were part of Connecticut's 18-month interim survey. The wave 2 data collection process corresponded to Connecticut's 36-month survey. Administrative data on earnings, employment, and TANF cash aid stretched to 48 months after random assignment through mid-2001.

child care selected, cost, use of subsidies, and the mother's views of her child's caregiver, and (6) children's early learning, school readiness, and social development.

Major Findings: How Have Mothers' Lives Changed Two to Four Years into Welfare Reform?

Several important findings detailed below pertain to differences in local sites — variability across the counties or states.[8] At the same time, common patterns emerged across all three states. Each of these wider findings holds implications for the well-being of mothers and young children two to four years after entering welfare-to-work programs.

Jobs and economic gains

Employment rates climbed for women as many successfully found jobs and remained employed between two and four years after entering state programs. In California and Florida, the share of women currently working climbed from 22% to 53% over the two years between wave 1 and wave 2 interviews. Part of this rise in employment was due to a robust economy and the fact that women entered the welfare system during a down period of their life.[9] Yet even women with multiple barriers to employment benefited from these employment gains. And in Connecticut, the Jobs First program helped to raise employment rates, relative to the control group. Four years after entering the study, 69% of the Jobs First mothers verses 58% of the control group were employed. This 11% differential can be attributed to involvement in Connecticut's welfare-to-work program.

Gains in earned income were significant for many women, but most showed little movement out of *low-paying and often part-time jobs*. Mothers in the two California counties earned $9.20 at hour two years after entering welfare-to-work programs, and Connecticut mothers were making $9.35 an hour three years after entry. Sampled women in Florida earned less, $7.82 hourly, about two years after entry.

Many mothers went off, or reduced their level of, cash aid as they moved into the labor force — effectively lowering their reliance on welfare assistance. But this also affected women's *total income*. Still, the Connecticut mothers participating in the Jobs First program were netting $135 more per month in total income, on average, than the control group after three years; this advantage was $180 monthly for women with higher barriers to employment (those with no work experience in the year prior to random assignment). These gains in total income for our sample of mothers with young children are considerably more robust compared to observed income differences between a larger Jobs First sample, and the corresponding control group, detailed in the MDRC evaluation. In both California and Florida, women enjoyed a $275 monthly gain in total income at wave 2, relative to wave 1 levels, after accounting for any losses in cash aid.[10]

Despite these gains in employment, total income fell below $13,000 per year for the average mother at wave 2. The majority of study families fell below the poverty line two to four years after entering work-first programs.

Many women were *eager to exit the welfare system*, and just over half of those in California and Florida did so by wave 2. Two-thirds of this group said that they "just didn't feel right staying on welfare." Most women understood that cash aid was now time limited, but few knew for how many months they could retain their eligibility. Many women reported changes in their behavior due to time limits, reportedly leaving welfare sooner and at times deciding against having another child.

Households, marriage, and social support

Housing arrangements vary across state samples and subgroups. Just over one-third of sampled mothers in California and Florida lived with a kin member or friend. This proportion was significantly lower for women with more work experience, and higher for those with less experience in the labor force. We observed no discernible change in the number of co-residents

within mothers' homes between wave 1 and wave 2 interviews. In Connecticut, women participating in Jobs First were more likely to live only with their children and with no other adult.[11] Overall, women with greater economic security tended to live in smaller households.

The *marriage rate* among sampled women in California and Florida rose from 7% to 12% between waves 1 and 2, not unexpectedly, given that most participating mothers were in their late 20s or early 30s at the point of the wave 2 interviews.[12] The rate at which women were *giving birth*, however, did not change in the year preceding wave 1 and wave 2 interviews. More surprising, the women participating in Connecticut's work-first program were *less likely* to be married three years after entry, compared to the control group (a statistically significant difference). Since Jobs First participants benefited from higher employment rates and net income, it may be that rising economic security provides more social independence, suppressing marriage rates. More research is needed on this question.

Across seven discrete indicators of *social support*, we found very little change for mothers in all three states, and no sustained differences in Connecticut between the Jobs First and the control group at wave 1 and wave 2. Two tentative signals of improved social support were observed, both related to the task of child rearing and both rising between waves 1 and 2 for California and Florida mothers. Overall, these women reported more support from kin members or friends both in terms of emotional support and providing child care assistance. These gains were observed in Connecticut among that segment of Jobs First participants who had no recent work experience, but not among women with stronger work experience.

The *geographic mobility* of families was remarkably high. Just over half of all Florida mothers had moved in the year prior to the wave 2 interview. This rate equaled one-third of the participating California families. In Connecticut, three out of four women had moved at least once during the three years after entering the study.

Time with children, parenting practices, and stress

Turning to home environments, one notable change is the *shrinking amount of time that mothers spend with their young children*. This appears to be due to rising employment rates and the fact that children are spending more time in child care. Almost half of all women employed at wave 2 reported a decrease in the number of hours spent with their child each day.

We observed *very few changes in parenting practices between wave 1 and wave 2*. We detected a significant decline in the frequency with which mothers play games, sing, or tell stories with their children at home. The frequency of reading together did not increase, although the number of books available to children at home did increase between wave 1 and wave 2 in all three states. These increases largely disappear after accounting for children's aging, but the gains suggest the importance of further research.

Children watched television about 20 minutes more each weekday in wave 2, compared to wave 1, among California and Florida families. This increase was inversely related to maternal employment. Children of jobless mothers increased their TV viewing by 36 minutes on average, compared to a 1 minute increase for youngsters of employed mothers.[13] This difference may be attributable to the higher educational levels of employed mothers and a desire to limit television viewing. Or, it may be due to the rising use of child care centers by employed mothers. We earlier observed very little use of the TV within center-based programs, especially when compared to children in home-based arrangements.[14]

No changes in home environments could be detected between waves 1 and 2 on 49 other indicators, nor were program effects from Connecticut's work-first program discernible on this wide range of measures. This includes other indicators of social support received by the mother; conflict and stress displayed by adults in the household; problems linked to housing quality; hunger and food rationing; rates of savings and debt; measures of the mother's affection toward, and emotional rewards gained from, her young child; and the mother's ability to cope with and enjoy the child-rearing process. (Appendix 1 lists all topics and measures employed at waves 1 and 2.)

Overall, the good news is that these various facets of the home environment—many of which affect the climate in which young children are raised—did not get worse as many mothers left home for jobs. On the other hand, without consistent improvements in home environments and pro-learning parenting practices, it's not clear how gains in low-wage employment for mothers alone will enrich their children's daily settings.

Maternal and child health

Mothers' *mental health*—a strong determinant of child development—did not improve significantly between waves 1 and 2 among women in any of the three states. In California and Florida, over four in ten mothers reported symptoms of depression that surpassed a clinical threshold. Employed mothers displayed a lower incidence of depression than unemployed women, except in Connecticut, but any causal relationship is difficult to determine. While overall incidence rates were quite similar in Connecticut, Jobs First participants who remained unemployed at wave 2 (three years after entry) displayed significantly higher rates of depression than the control group.

The rate of families covered by *health insurance* differed across the participating counties. Just 58% of sampled Florida mothers and 80% of the children were covered by Medicaid at wave 2 in year 2000. Employers provided coverage to an additional 10%. In San Francisco, fully 97% of all mothers reported being covered by Medicaid or a private policy. In Connecticut, 92% of the women participating in Jobs First reported health coverage, compared to just 81% of the control group. Among women working at wave 2 in Connecticut, four in ten women reported that their employer offered health insurance.

Child care

The share of mothers *using a child care provider*—ranging from a kin member to a formal center or preschool—rose by about 15% across the three states between waves 1 and 2. This trend was directly associated with rising employment rates. About one in five mothers used more than one provider at least 10 hours per week at wave 2. The share of mothers selecting formal centers rose significantly, climbing from 18% to 38% in San Jose, for example, between wave 1 and wave 2. In Connecticut this proportion moved up from 14% to 34%, combining the Jobs First and control groups. No differences could be detected on the likelihood of selecting center-based care between the program and control groups. Part of this rising use of centers is related to the aging of children.

The rising use of center-based programs and a stronger draw on child care vouchers—in California and Connecticut—translated into an overall *increase in mothers' utilization of child care subsidies*. This was particularly impressive in California where subsidy take-up rates rose even as many women were leaving TANF cash aid. The subsidy take-up rate (among women using child care) moved up from 56% to 78% between waves.

The overall use of subsidies remained constant in Connecticut at 26% at wave 2. Administrative records reveal that 57% drew at least partial child care subsidies, typically for a few months, during the second and third year after random assignment. Many women had moved off TANF cash aid, but they still benefited from child care support.

A significant number of women are *paying cash out of pocket* for child care. In Florida, the share of mothers making cash payments rose from 46% to 66% between waves 1 and 2, mostly attributable to the rising incidence of co-payments, averaging about $100 a month. This stems from gains in earned income which drive the level of co-payment that's required of employed mothers. About one in six women, across all three states, drew child care services from kith or kin at no monetary cost.

Mothers who rely on *kith and kin members* for child care in California and Florida rate them higher on organizational flexibility and ease of communication, compared to mothers who selected center-based care. Almost one-third of all mothers, across the three state samples, reported that they worked evening shifts; four in ten worked on weekends.

When we asked mothers what kind of child care they preferred if available and affordable, about 60% indicated *center-based programs*. This suggests that demand for center-based care would be stronger if centers and preschools displayed the organizational flexibility and trust engendered by less formal providers.

Children's early learning and school readiness

Children scored at about the *30th percentile* on a comprehensive assessment of cognitive proficiency and language development, on average across the three states, based on national norms. Children's early development was strongly related to their mother's school attainment and her cognitive proficiencies. Mothers scored just below the *25th percentile* on their assessment of cognitive and language proficiency.[15]

Children's early learning trajectories for lower-performing children in California and Florida, traced between waves 1 and 2, rose at a steeper incline for those who attended center-based programs.[16] This compares to children who entered other kinds of child care settings and those who remained at home. The stronger learning trajectories displayed by children who attended centers remain significant after taking into account the family's home language, ethnicity, the mother's school attainment and cognitive proficiency, and parenting practices in the home. Growth in emergent literacy skills was even steeper for children who attended higher quality centers.

The incidence of children's *behavior problems* declined between waves 1 and 2 in California and Florida. This decline becomes insignificant after taking into account children's aging between data collection points. Children with employed mothers displayed significantly fewer behavioral problems than youngsters with unemployed mothers. Attendance at center-based programs was unrelated to youngsters' incidence of behavior problems and level of social development. In Connecticut, mothers' participation in Jobs First led to no significant differences in children's intensity of behavioral problems.

Organization of the Report

Section 2 describes the policy and economic contexts in which welfare reform was unfolding in the mid and late 1990s as our study proceeded. The economy continued to expand across the

two data collection periods, including wave 1 and wave 2, through year 2000. State welfare policies also evolved in varying ways across California, Connecticut, and Florida—particularly in terms of time limits on cash aid, child care policies, and availability of post-TANF family supports—in ways that may have affected mothers and young children.

Section 3 delineates the basic research questions that frame the Growing Up in Poverty Project, describes how participating mothers were sampled, highlights how the Connecticut and Florida-California samples differed, and provides basic descriptive data on participating mothers and children.

Sections 4 and 5 detail the new findings—focusing on Connecticut families and then California and Florida families—exploring how mothers' and children's lives have changed between two and four years after entering welfare-to-work programs. Presentation of the new findings follow the six topical areas summarized above. We continue to report empirical results for the mother and her "focal child," the youngster who was between 12 and 42 months of age when the mother was initially sampled for the study.[17]

Findings from Experimental and Longitudinal Panel Data: Cautionary Notes

We report findings for Connecticut families separately from the combined sample of California and Florida families. For all three states, we now have collected two waves of data—with near identical maternal interviews and assessments of children's development —for families in all three states. But the mothers in Connecticut entered that state's work-first program 12-18 months before their counterparts did in California and Florida.

In addition, the Connecticut mothers were participating in a real experiment, each being randomly assigned to the Job First program or to a control group. This offers the advantage of identifying discrete effects linked to the new welfare program, an analytic task that is not possible with the California and Florida family samples. For these two states, we study change over time, including rates of children's early learning. But we can not make air-tight causal claims, since particular pathways taken by women and children may be influenced by factors that remain unmeasured, out of our analytic sight so to speak.

SECTION 2

STATE AND COMMUNITY CONTEXTS

Local economies, policies, and implementation

Overview

Our nation no longer has a single set of family welfare programs—we have 50 diverse policy regimes. Several states, including California and Florida, have further devolved authority and dollars down to county governments. And key work supports—especially the archipelago of child care organizations and individual caregivers that dot local counties—have long operated in a decentralized fashion.

So, to understand the forces that may drive change or continuity in the lives of families we must illuminate such variations in local contexts. This section details the evolution of economic and policy contexts within our participating states and counties. We focus on the period, 1996-2000, stretching from when the first mothers were drawn into our sample to completion of wave 2 data collection.

The nation's economy continued to expand through 2000, spurring steady growth in labor demand, even for low-skilled workers entering low-wage jobs. In addition, many states and counties pushed forward to implement the 1996 federal reforms. This included efforts to enforce time limits on cash aid (particularly in Connecticut), expanded child care funding and richer information for mothers about options (in all three states), and governance changes, including a shift of job preparation services out of county or regional welfare offices and into labor departments, or to private firms (in Connecticut and Florida).[18]

Ideally, empirical studies would pinpoint how discrete policies yield particular outcomes. For example, does time-limited aid spur women to move off welfare and realize gains in net income? Do particular elements of welfare-to-work programs, such as job preparation activities or signals sent from caseworkers, contribute to women's employment behavior over time? Do certain forms of child care, expanded with public funding, contribute to young children's early learning and development?

Yet tightly linking a particular policy lever to specific change in family behavior is easier said than done. Experimental research designs, such as the one employed in Connecticut, help to isolate the *aggregate effect* of participating in a work-first program. But additional research is required to figure out what elements of the program really worked. Nor can families be randomly assigned to every condition—higher quality training programs or quality child care, for example—which would illuminate underlying causal processes. So, longitudinal panel data, including our California and Florida samples, can contribute to our understanding of how exposure to certain policies is associated with differing family outcomes. And by studying families in five differing counties, a comparative approach, we aim to illuminate how local policies and institutional conditions may contribute to differing outcomes. First, we describe the varying conditions facing families locally in the years following the 1996 reforms.

The National Economic Picture and State Portraits

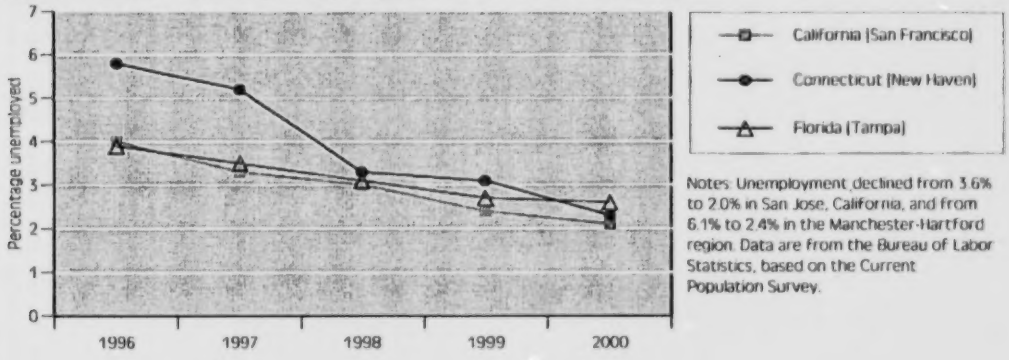
Economic growth continued to spur rising demand for low-wage workers through the wave 2 data collection period at the end of 2000. Economic data from our three participating states illustrate basic trends (Figure 2.1). Jobless rates, shown in panel A, continued to decline in each county, based on the annual quarterly average reported by the census bureau. In the New Haven-Meriden region of Connecticut, for example, the unemployment rate fell from 5.8% in 1996 to just 2.3% in 2000. In San Jose the jobless rate started out low—3.6% in 1996—then fell even further to 2% in 2000 (not shown).

The three participating states differ along basic economic indicators. Median household income in Florida equaled just under $38,000 in 2000, compared to just over $53,300 in Connecticut. Median income in California was closer to Connecticut, pegged at $46,800 in 2000. The basic differences in population are important to note. California had 2.5 million children under 5 years old in 2000, compared to 945,000 in Florida and 223,000 in Connecticut.

Declines in child poverty rates were seen in all three states between 1996-2000 (panel B of Figure 2.1). The most significant decrease was in California, where child poverty fell from 25% of all youngsters under 18 in 1996, to 19% in 2000. The child poverty rate in Connecticut declined from 15% to 11% during the same period. Yet Connecticut continues to have a bifurcated distribution of family income. Between 1990-2000, the income of the state's most affluent 40% of families rose, while the poorest 20% experienced a 26% drop in income.[19]

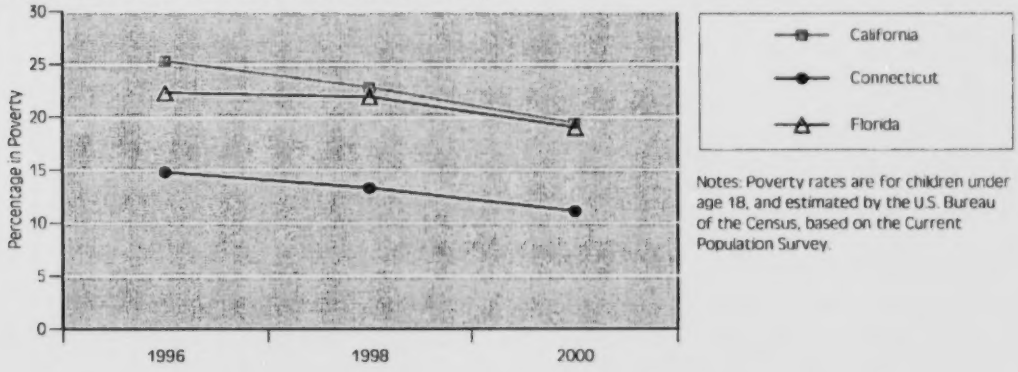
Welfare caseloads continued to decline into year 2000 (panel C). California's caseload decline has been modest, compared to trends in other states. The overall decline, 1996-2000, equaled 44%. If California had adopted the more stringent eligibility

Figure 2.1 Panel A Declining unemployment rates for selected counties



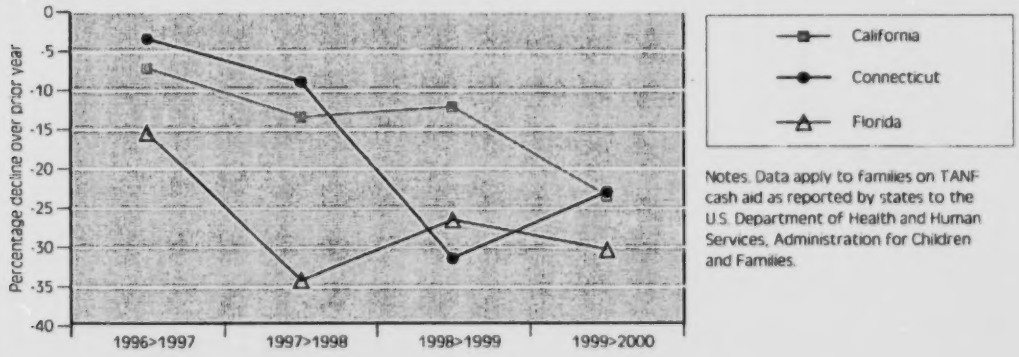
Notes: Unemployment declined from 3.6% to 2.0% in San Jose, California, and from 6.1% to 2.4% in the Manchester-Hartford region. Data are from the Bureau of Labor Statistics, based on the Current Population Survey.

Figure 2.1 Panel B Declining child poverty rates by state



Notes: Poverty rates are for children under age 18, and estimated by the U.S. Bureau of the Census, based on the Current Population Survey.

Figure 2.1 Panel C Declining welfare caseloads by state



Notes: Data apply to families on TANF cash aid as reported by states to the U.S. Department of Health and Human Services, Administration for Children and Families.

and work rules put in place by a hypothetical "average state," the caseload would have fallen by about 64% over this period.[20] The fall in Connecticut's caseload was precipitous between 1998 and 1999, as many women hit their 21-month time limit and left the system.

These state-level trends mirrored developments across the country as implementation of the 1996 federal reforms proceeded. A range of information has become available recently that illuminates how families fared—during this period of robust growth in labor demand:

- *Welfare caseloads fell* by 57% nationally, from a high point of about 5 million families drawing cash aid in 1994, to 2.1 million in 2001, prior to the recession. The extent to which the caseload decline can be attributed to policy change versus strong labor demand remains an open empirical issue. Recent analyses, however, have identified significant effects stemming from federal and state policy changes.[21]
- Just under three in five single parents were *employed one year after exiting* the welfare (TANF cash aid) system, looking across 15 state-level studies of "welfare leavers." *Average earnings*, across these same state studies, were estimated at about $10,400 annually. This translates to hourly wages of between $7 and $8 on average, taking into account part-time employment.[22] Recent experimental studies reveal employment advantages of between 3% and 12% for program participants across different state programs, compared to control groups.[23] The economic expansion, of course, benefited many women in the control groups, as seen in their rising employment rates.[24]
- While the labor market absorbed many additional single mothers, the *structure of wages* for low-skilled women did not change much. The labor force participation rate of single mothers who had been on cash aid in the prior year rose dramatically after 1996, from just under 40% to almost 57% by 2000. But hourly wage levels rose just 3.5% among similar, low-skilled women after 1996, despite strength in labor demand. And this gain must be set in the context of a 7.9% drop in real wages for this group between 1979 and 1994.[25]
- *Collateral family support programs*—enlarged and reformed during the 1990s—contributed significantly to many women's net income as they moved off cash aid and into jobs. The earned income tax credit (EITC) has grown dramatically over the past decade, distributing about $30 billion in refundable credits to 18 million low-wage workers in 2000.[26] About one million additional low-income parents received child care subsidies in 2000, compared to 1996, thanks to growth in the federal Child Care and Development Block Grant and transfer of TANF savings into child care.[27] Participation in Medicaid and the Children's Health Insurance Program (CHIP) has inched upward among families leaving cash aid, although many continue to leave this form of health coverage even when still eligible.[28]

Given the strong economy and welfare-policy effects, some policy makers hoped to see a reduction in the so-called "poverty gap." This measure estimates the number of dollars required to push all individuals living in poverty up over the poverty line. Between 1993-1995 this dollar gap was reduced by $7.2 billion after taking into account taxes and income transfers (including cash aid, the EITC, food stamps, and other benefits). But the closing of this gap slowed between 1995-1999, further narrowing by just $2.3 billion, largely after welfare reform.[29]

The overall poverty gap shrank between 1993-1999, from $32.0 to $22.5 billion. But the slowing of progress is worrisome, especially in light of employment and earnings gains experienced by many single mothers during this period. It may be due to an aggregate loss in cash aid in the wake of welfare reform; that is, gains in earnings were offset by a loss in income transfers. Whatever the underlying factors, it does suggest that the economic context remains uneven for many mothers and children.

Evolving Policy Contexts—States and Counties

Welfare and child care policies differ significantly among our three participating states, and these variations may be related to change and continuity in the lives of families. Specific provisions of welfare policies can be compared along several dimensions. Table 2.1 reports indicators of cash benefit levels, the disregard of earned income (creating an incentive to work), and the toughness of sanctions and time limits.

For example, in 1998, as we were sampling mothers into the study, the monthly welfare payment for a family of three equaled $303 in Florida, $543 in Connecticut, and $565 in California. Connecticut legislated a 21-month *lifetime* limit on cash aid, versus 48 months in Florida and 60 months in California (for the mother's case). As Connecticut officials began to enforce the time limit, however, a significant number of extensions or exemptions from work requirements were granted.[30] Florida and California have intermediate time limits: women can receive cash aid for up to 24 of any 36-month period in Florida, and California recipients can be on cash aid for not more than 24 consecutive months.

Connecticut has attempted to create strong short-term incentives to work through its "income disregard" policy. Welfare caseworkers disregard 100% of the family's earned income in calculating eligibility for cash aid up to the federal

Table 2.1 Contrasting state welfare policies for California, Connecticut, and Florida

	Benefit levels	Income disregard	Sanctions	Time limits	Work incentives overall
California	High	High	Lenient	Strict	Mixed
Connecticut	High	High	Moderate	Strict	Mixed
Florida	Medium	Moderate	Strict	Strict	Strong

Notes: Indicator levels are in relative terms, comparing one state to average rules and benefit levels. This summary was adapted from Blank & Schmidt (2001). Original analysis appears in the State Policy Documentation Project, conducted by the Center for Law and Social Policy and the Center on Budget and Policy Priorities (www.spdp.org).

poverty line. We will see in Section 4 how this clearly spurred mothers to find work *and* retain their cash assistance until they hit their time limit. In contrast, Florida policy stipulates that just 60% of earned income can be disregarded. California falls in between with about 81% of income being disregarded in our two participating counties during waves 1 and 2.

Mothers with infants under one year of age generally are not required to work in California. But in Florida, mothers face work requirements once their baby turns 3-months old. Overall, Florida has the lowest cash benefit level, the strictest sanctions, and relatively stronger incentives to work. Connecticut displays a strong incentive to work in the short run with the full income disregard. Connecticut typically exempts mothers from work requirements until their infant turns 1 year-old. California has the highest cash benefit level among our three states, and relatively weaker incentives to work, allowing women to combine work and cash aid.

In addition, state child care policies create supports or incentives for employment. Table 2.2 sketches differences in state-level policies, related to families on cash aid and working poor families. For example, the ceiling on families' eligibility for child care support is relatively high in California and Connecticut, 75% of the state's median income, in 2000. In contrast, families earning over 50% of Florida's median income become ineligible for child care assistance. Connecticut's eligibility for child care assistance extends indefinitely following exit from the TANF system, compared to a two-year time limit imposed by California. In Connecticut, however, the state periodically freezes new enrollments for the low-income child care program.

The rates at which states and counties reimburse child care providers—be they centers or individual caregivers receiving voucher support—also vary significantly. In California, providers are reimbursed up to 93% of the market rate, and the statewide survey upon which market-derived costs are determined is recent, conducted in 1999. In Connecticut, the state reimbursed providers at 75% of the market rate, and market prices were determined in a statewide survey conducted a decade ago. Florida has created a tiered reimbursement system, allocating twice the per child amount to centers and

Table 2.2 Contrasting state child care policies for California, Connecticut, and Florida

	Income eligibility cut-off as percentage of state's median income (single mother, two children)		Co-payment required monthly for one child (family of three at poverty level)		Child care providers reimbursed at 75% of market rate or more?
	1995	2000	1995	2000	2000
California	66%	73%	$0	$0	Yes, paid at 75% to 93% of 1999 market rate
Connecticut	76%	75%	$41	$47[1]	No, paid at 75% of 1991 market rate
Florida	54%	50%	$64	$69	Yes, paid at 75% of 1999 market rate; centers receive twice reimbursement as home-based providers

Notes: Adapted from Shulman, Blank, & Ewen, (2001). A Fragile Foundation: State Child Care Assistance Policies. Washington DC: Children's Defense Fund.

[1] Copays not required of Connecticut mothers while drawing TANF cash aid.

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preschools, compared to the reimbursement level for individual providers. This creates a strong incentive to use center-based programs, and for new organizations to enter the field if the pay-out to centers is sufficient. This helps to explain why, at wave 1 in 1998, we discovered a high rate of center selection by participating Tampa mothers.[31] In 2002, Connecticut began a tiered reimbursement system, based on a new market rate survey.

Mothers' use of subsidies and the duration of such support is important to consider. A larger share of women drawing TANF cash aid now taps into child care support, compared to the percentage under the old AFDC program. In part, this is due to the fact that very few women with children under 5 years old faced stiff work requirements, nor significant economic incentives to work, prior to 1996.

Modest and variable shares of eligible families are obtaining child care support, nationwide, either through welfare offices, center-based programs, or community agencies that distribute child care vouchers. Among 16 states that could estimate subsidy utilization rates, less than one in five eligible families were taking-up their child care support, and no state reported a utilization rate exceeding one in four of all eligible families.[32] A second study found that the duration of subsidy use can be quite short, ranging from 3 months in Oregon to 7 months in Texas. In some states, among the five studied, many women re-entered the subsidy system for a succession of short spells.[33]

Child Care Availability among Neighborhoods

The neighborhood availability of child care options speaks to a key element of youngsters' daily contexts. We report below on how mothers, not surprisingly, are spending less time with their preschool-age children as they move out of their homes and into jobs. This means that children are being raised by a widening array of adults, be it within formal centers or home-based settings. And mothers' propensity to select centers or preschools may stem from the nearby availability of such programs.

Our earlier report detailed wide variability in the simple availability of enrollment slots found in centers. For example, we found that centers in Tampa provided 42 child slots for every 100 children under age 5, on average, within the neighborhoods in which our family sample resided. This compared to just 11 slots per 100 children in the zip codes of participating San Jose families.[34]

We have extended this analysis to include center information for the two Connecticut sites, New Haven and Manchester. In addition, we geocoded the location of all participating families and each center-based program. This allowed us to determine the total number of enrollment slots operating in centers situated within a one-mile radius of each family. The number of slots—be they filled or vacant—is reported for the median family by site in Figure 2.2.

This new analysis confirms that the availability of center-based slots is quite high in Tampa (736 slots) and San Francisco (842 slots) for the median family, relative to the other three counties. Availability of center slots is lowest in Connecticut, equaling 233 slots within a mile radius of the median family, and just 136 slots in Manchester.[35] We can not assume that all these slots are available to welfare or working-poor families. But the bulk of these centers are located in low-income communities, populated by subsidized centers. This analysis does not include licensed family child care homes.

Local Implementation and Policy Developments since 1998

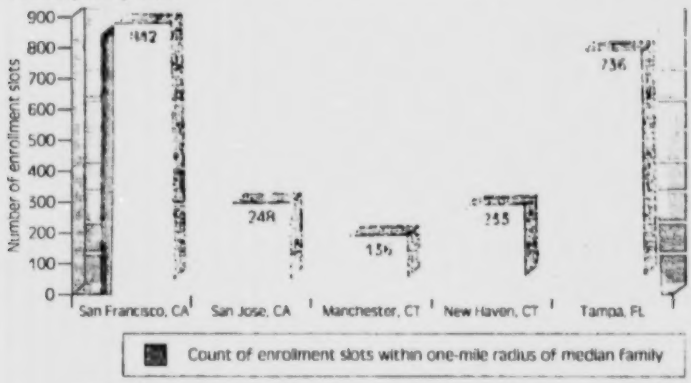
States and local counties continued to implement the federal reforms as we drew our sample of families, between 1996 and 1998. In California, the state legislature did not pass authorizing legislation that incorporated the federal changes until mid-1997. Florida had approved their rendition of welfare reform over a year earlier. And Connecticut had transitioned most AFDC clients into the Jobs First program by the end of 1996. In each state, after 1998, policy developments and implementation steps continued to unfold.

California. The implementation of welfare reform was decentralized, to a limited extent, down to the state's 58 counties. The state legislation—replacing AFDC with the new CalWORKs program—established basic eligibility criteria, the 24-month consecutive time limit for cash aid, and greatly expanded child care programs (primarily voucher support). Local governments and their welfare departments design job preparation services, set the structure and culture of local offices, and variably coordinate a variety of work-support efforts, including child care programs.

In our study counties—San Francisco and Santa Clara—welfare departments have contracted out specific services, including job clubs, training programs, and the management of child care subsidies. County approaches vary in terms of whether an individual caseworker or set of specialists manages family cases. The Rand Corporation is conducting a long-term evaluation of the state's CalWORKs program. This research team's initial look at local implementation revealed several sticking points.

Concerned about the well-being of children, as well as moving mothers into jobs, the state created the CalWORKs program. The CalWORKs acronym stems from the Work Opportunity and Responsibility to Kids Act, indicating the legislature's clear

Figure 2.2 Availability of center and preschool enrollment slots by county site, 1998



Notes. Data provided by state and county child care agencies to the Growing Up in Poverty Project. Detailed analysis of supply conditions appears in Fuller, Gascue, Kagan, et al. (2001). Explaining family demand for early education (working paper).

concern with how child well-being would be advanced or under cut as many more mothers entered jobs. Funding for child care and preschool programs distributed from Sacramento has risen rapidly, from $800 million in the 1997 fiscal year, to $3.1 billion in the current year. Most of this increase has been for child care vouchers, assisting welfare families or working-poor parents through the state "alternative payments" program.[36]

This steady growth in voucher financing, compared to direct support of centers and preschools through contracts, has constrained the expansion of center-based enrollment slots statewide. For example, the number of new center slots has grown just below the annual rate of child population growth, about 3.1% each year since 1996. Additional analysis is required to see whether this decline applies to centers situated in low-income communities.[37]

County-level developments are important to note as well. Each county welfare agency spent considerable effort in reshaping their caseworker staff and the culture of local offices. California had already experienced a series of reforms relating to the individual caseworker's role, dating back to the 1970s when they were designated as "eligibility workers," checking to see whether mothers remained eligible for cash aid. In this light, the 1996 reforms have been viewed as positive in the sense that the caseworker's role is now more enabling, assisting clients to enter job preparation activities, education and training, or to move into the labor force.

Staffing of child care agencies has grown rapidly, largely within nongovernmental organizations (NGOs) which came to administer rapidly growing child care budgets. As one NGO director recently said, "1998 was a very challenging year," the first full year of implementation after the 1997 passage of the state welfare reform bill. Counties have brought on senior staff to manage the child care elements of CalWORKs and to liaise with the local NGO community.

Policy leaders in both California counties, from 1996 forward, have been concerned about the availability and quality of child care options. An earlier project policy brief details the innovative efforts taken by county leaders to improve information made available to welfare families and working poor parents. Aggressive efforts have been undertaken to boost the share of mothers who draw their child care subsidy.[38] Our wave 2 findings detail how these efforts appear to have paid off in terms of gains in the subsidy take-up rate between 1998-2000 (Section 5).

The San Francisco Children's Council, one sizeable NGO, has boosted its count of caseworkers from 15 to 80 positions after contracting with the welfare agency in 1998 to disburse child care subsidies. Total reimbursements to providers now exceed $28 million annually in San Francisco. Given the preferences of some CalWORKs parents and the scarcity of center-based enrollment slots, a rising share of aid has been going to mothers who rely on kith or kin and draw voucher support, equaling 53% of all families receiving aid in 2000; 15% of voucher recipients select center-based programs.

Another major local development is the growth of tobacco-tax funding of early childhood programs statewide, under state Proposition 10. It created a state Commission on Children and Families, along with 58 county commissions, which together spend about $700 million each year on early childhood programs, including quality improvement efforts and wage incentives for providers who stay in the field and pursue further training.

Connecticut. In 1999, the state advanced a "balanced work first" policy strategy that intends to address the barriers to employment experienced by many TANF recipients. Jobs First was never limited only to quick work placement. The 1999 adjustments signaled a more intense investment in job preparation activities, including job search training, counseling, and basic classroom instruction in literacy and numeracy. We will see in Section 4 how a significant percentage of Jobs First participants enrolled in community college training as well. Employment services had been moved out of the

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Department of Social Services (DSS) and into local offices of the state labor department in mid-1998. This reportedly eroded morale in some DSS field offices. The new offices began to set-up one-stop centers for job training programs in 1999 under innovative state legislation.

Some advocates have argued that the philosophical adjustment manifest in the balanced work first strategy has not been followed by a sufficient investment. The state's investment in employment support services reached $16 million in 2000. Yet state spending on cash aid fell by about $150 million between 1998 and 2000 as many clients hit their time limit and caseloads declined dramatically.

Before women began hitting their 21-month limit, the legislature had created Safety Net Services for those recipients who would not be eligible for extensions or work exemptions. Services extended to these families include food aid, temporary housing, clothing, and intensive case management. No cash assistance is provided. In 2000, however, about one-third of those enrolled in the safety net program were reinstated into the TANF program.

MDRC's comprehensive evaluation of the Jobs First program includes an implementation substudy, conducted largely in the two study sites of Manchester and New Haven. The final report details several implementation problems that may have constrained the effectiveness of the Jobs First experiment: under staffing of field offices as they moved aggressively to provide more job-related services; a rocky start for the child care subsidy program that has been administered by two different private firms; difficulties in monitoring work activities of clients; the bifurcation of eligibility and intake from employment services, split between DSS and Department of Labor (DOL); and two rough transitions in terms of which agencies or staff had primary responsibility for case management. Both DSS and DOL contracted with private firms or consortia of local NGOs to run elements of case management.[39]

Connecticut also was implementing a new school readiness initiative during our field work, 1998-2000. This continues to be run as a cooperative venture between state education and social services agencies. This may have improved the odds that Jobs First (and control group) mothers were able to locate a center-based program for their child prior to our wave 2 interviews. We do report a significant rise in the share of focal children attending centers and preschools at wave 2. The state's school readiness initiative was expanding during the study period, operating in 36 school districts, serving 6,500 children. The program aims to serve low-income families who generally can not afford quality preschool programs.

When we conducted quality assessments at wave 1 — at center-based and home-based child care settings — centers displayed generally low quality on multiple measures, although few women had selected centers. Low center quality, on average, may be due to relatively low training requirements for child care staff. For example, entry-level teaching staff in centers are not required to have any early childhood training, nor are individuals who run family child-care homes and qualify for public subsidies.[40]

Florida. Quick implementation of the WAGES work-first program, expanded child care funding, and a bumpy decentralization of welfare programs have marked this state's context since 1996. Florida's experimental Family Transition Program was well under way prior to President Clinton's approval of the work-first program strategy. By the time we began drawing our sample of families in spring 1998, the state had created a state workforce development (or so-called WAGES) board, and established local boards in each county. The state also raised the income eligibility ceiling for child care support to 200% of the poverty line to serve additional working poor families.

Originally, the state departments of Labor and Children and Families cooperatively ran welfare programs in Hillsborough County, including Tampa and surrounding towns. But by the year 2000, county workforce development boards had taken control of the welfare-to-work initiative and privatized the management of many client services. For example, Goodwill Industries was managing many family cases during our wave 2 data collection. Most recently, the governor pushed to transfer school readiness and preschool funding out of the education department and into the state workforce development board. Much of this money will go to local boards for privatized service delivery, either by nonprofit community organizations or for-profit firms.

Florida's tiered reimbursement structure for child care providers also distinguishes this state's policy regime. This policy, matched with relatively low quality standards compared to other large states, creates an incentive for private firms and nonprofits to build new center-based programs. This may explain, in part, why the supply of center-based enrollment slots is quite high in the Tampa area, even compared to California which has a better funded system of nonprofit centers statewide. As discussed in our earlier report, the quality of Tampa's centers is low on average, although quite variable. Child care staff earn $14,460 annually on average.

Florida has implemented demanding work requirements on most welfare families. For example, mothers must enter a work activity when their infant turns 3 months of age, compared to 12 months of age in California. The lifetime limit on cash aid is four years in Florida, compared to 21 months in Connecticut and five years in California. Similar to other states, Florida tries to provide child care assistance for two years after the mother has moved off cash aid and into a job.

Required co-payments for child care kick-in earlier for Florida mothers, compared to California and Florida. The minimum co-pay equals about $16 per month, then rises when the mother's income climbs. Florida has experimented with reimbursing providers that provide transportation to mothers, enabling them to get to work with one less burden. Child care services are contracted from the county WAGES or workforce board to the Central Agency, a countywide resource and referral agency that provides a variety of services to parents and providers alike. All reimbursements go directly to providers, although we detail in Section 5 how many women understood that they were receiving a portable child care voucher, allowing choice from among different options.

Summary

Certain commonalities marked all three states. For instance, the strong economy continued to drive down jobless rates and levels of child poverty throughout our two data collection periods. Each state program included time limits on cash aid, intensive job preparation activities for many clients, and rising availability of child care support.

At the same time, state policy makers crafted varying welfare-to-work programs. The Connecticut legislature and governor set a 21-month lifetime limit for cash assistance, compared to five years in California. Connecticut front-loaded a relatively generous income disregard which created a strong incentive to work – but only until mothers hit their 21-month time limit. In contrast, California has a weaker disregard and more lenient time limits. Florida has the toughest income ceiling, set at just 50% of the state's median income, for families applying for child care assistance. Connecticut allows families earning up to 75% of the state median to receive child care assistance.

Local communities differ dramatically in the availability of center-based programs. Centers and preschools operating in San Francisco, in 1998, provided over six times as many enrollment slots within a one-mile radius of the median study family than did centers in Manchester. Strong center supply in Tampa appears to stem from the tiered reimbursement system and a robust for-profit child care sector. Entry to the provider market is attractive for these firms, given weak quality regulations and low wages for center staff. But in turn, these centers provide many spaces for low-income families.

In sum, we see significant variability in state policies and local institutions. It remains difficult to attribute particular family outcomes to a discrete policy, given the complexity of these policies and organizations. As we detail our empirical findings, broken down by state or county, we return to these policy regimes and advance working hypotheses regarding how policy action may be affecting family-level behavior.

SECTION 3

DIVERSE MOTHERS AND CHILDREN

Sampled families two to four years into welfare reform

Overview

We aimed to learn—from the outset of the Growing Up in Poverty Project—how mothers with young children fared as they moved through new welfare-to-work programs. In 1998 we identified over one thousand women, all of whom had recently entered a new welfare-to-work program and had at least one child, age 12-42 months. A third criterion for being sampled was that the mother was the head of her single-parent household.[41]

In this section we detail key attributes of sampled families and sketch key elements of the study's design:

- How representative are the mothers who agreed to join the study—compared to similar families served by welfare offices in the five participating counties?
- To what extent did the family sample change as some women left the study between 1998 and 2000?
- What are the demographic and economic features of the participating mothers, their households, and their neighborhoods?
- How diverse are the families, particularly in terms of mothers' prior work experience, barriers to entering the labor force, and their home environments?

Sampling Families in Three States: Wave 1 Data Collection, 1996-1998

Our initial sampling of families yielded 948 mothers who agreed to participate, situated in five counties and spread across California, Connecticut, and Florida. This represented just over 90% of the 1,079 women who we contacted and who met our sampling criteria.[42]

In Connecticut we sampled women who had been randomly assigned in 1996 or 1997 to the state's new Jobs First program or assigned to a control group. The latter half of families continued to live under the old AFDC welfare rules and experienced less pressure to find a job. In California and Florida, we sampled women in 1998 who had entered their state's work-first program, recruited from orientation sessions in county welfare offices. The final family sample at wave 1, after dropping cases with incomplete data and those that inadvertently passed through the sampling screen, equaled 927 mothers and their young children.[43]

Our study team welcomed the opportunity to collaborate with the Connecticut Department of Social Services and the Manpower Demonstration Research Corporation (MDRC) in their random-assignment evaluation of the state Jobs First program. Both organizations were open to designing interview protocols, child care observations, and home visits that were shared with our California and Florida sites. This enhanced our ability to compare wave 1 and, now, wave 2 results across the three states.

The Connecticut family sample differs from the California and Florida sample in two important ways. First, our wave 1 interviews with Connecticut mothers occurred about 18 months after they entered this state's work-first program. In contrast, initial sessions with mothers in California and Florida took place within six months of entry. Thus, the Connecticut mothers were further into the welfare-to-work program, and a significant share had disconnected from the cash assistance (TANF) part of the state's welfare-to-work program.

This difference in timing resulted in varying lengths of exposure to state and county welfare programs—depending on whether women remained in contact with the TANF cash aid system. For example, when we conducted the wave 2 maternal interviews and home visits in 2000, the average Connecticut mother had entered the work-first program *three years* earlier, compared to less than *two years* of exposure for the average mother in California and Florida.

One other issue around the timing of sampling pertains to Florida and California. By 1998 the new Florida work-first program had been underway for a little over one year statewide. In contrast, many of the California mothers were being "re-enrolled" from the old AFDC program into that state's CalWORKs program as they entered the study. A portion of the Florida mothers had felt pressure to find a job from 8 to 12 months longer than the California mothers at the time of wave 1 interviews.

The second difference regarding the Connecticut sample, introduced above, is that half the families had been randomly assigned to the state's Jobs First program and the other half to the control group. This allows the opportunity to isolate the possible effects of participation in the state's welfare-to-work program.

In designing the Growing Up in Poverty Project, we emphasized the importance of local variability, both in the policy regimes set in place at state and county levels, as well as the diversity of neighborhoods in which poor families reside. Our

earlier report, for instance, illuminated how the supply of center-based child care varies dramatically among counties and across neighborhoods within counties – organizational conditions that influence women's decision making.[44] These local differences constrain our ability to generalize to larger populations of welfare-poor families. Under the devolution of many welfare policies and practices, the force of these local conditions must be taken into account as we interpret empirical patterns.

How Representative is the Family Sample?

Our research team was most curious about single mothers who were deemed eligible and who entered new welfare programs in each of the three states. To generalize from our family samples, at least to the counties from which our samples were drawn, we wanted to check that the families randomly selected in 1998 were representative of all welfare clients who resembled our sample: female-headed households with at least one young child, age 12-42 months old.

Table 3.1 compares the sampled families against that portion of each county's caseload that met our selection criteria, gleaned at a given month in 1998. Overall, our original random samples were closely representative of each county's caseload at that point in time. The sampled mothers in San Francisco and San Jose were three years older than the overall slice of the caseload made-up of single mothers with young children. And Latino families were slightly under represented in New Haven and Tampa samples. We over sampled Vietnamese-American mothers in San Jose, since county leaders requested a separate analysis of these families.

Changes in the Family Sample between Wave 1 and Wave 2

After completing wave 1 data collection in January 1999, we maintained periodic contact with as many participating mothers as possible. Severe attrition in family samples, experienced by similar studies, can restrict the generalizability of the findings to broader populations. Somewhat better-off families are typically retained at a higher rate. This can bias downstream research results. So, we analyzed the basic features of those mothers and families retained in the sample after completing wave 2 data collection, compared to those who had dropped from the sample.

We began setting up the wave 2 interviews and home visits by early 2000, scheduling this second round of data collection about 18-24 months after the first round. We were able to interview 78% of the original wave 1 participants by the time we completed the wave 2 data collection in early 2001.[45] This

Table 3.1 Representativeness of family samples—mothers' attributes at wave 1

	Mother's Age (median years)	Ethnicity (%) Black	Latino	Vietnamese	On aid in prior year
San Francisco					
Sample	29	57	18	0	97
Population	26	56	16	3	92
San Jose					
Sample	29	7	51	26	98
Population	26	11	51	13	NA
Manchester					
Sample	26	20	19	0	60
Population	25	23	16	0	48
New Haven					
Sample	25	44	21	0	65
Population	24	42	30	0	57
Tampa					
Sample	32	47	14	1	92
Population	30	47	23	0	NA

Note: Comparing sampled families against county welfare populations meeting sampling criteria. For Connecticut, the percentage of women on aid is for the year prior to random assignment.

Table 3.2 Family samples at wave 1 (1998) and wave 2 (2000) (sample sizes and retention rates in parentheses)

	Wave 1 Maternal interviews	Wave 2 Maternal interviews	Wave 2 Home visits/Child assessments
Connecticut families[1]			
Manchester (Hartford County)	73 (69)	60 (87%)	34 (49%)
New Haven (New Haven County)	238 (224)	194 (87%)	125 (56%)
California families			
San Jose (Santa Clara County)	219	139 (76%)[2]	121 (66%)
San Francisco (city and county)	195	158 (81%)	135 (69%)
Florida families			
Tampa (Hillsborough County)	202	155 (77%)	141 (70%)
Total Sample Sizes (n)	927 (909)	706	556

[1] The Connecticut family sample excludes child-only cases and mothers who had participated in a welfare-to-work program prior to the Jobs First program experiment. Sample retention percentages are calculated on the corrected wave 1 sample of 293 families. The original wave 1 sample, including all maternal interviews completed in Connecticut, totaled 948 families before these exclusions were made.

[2] Adjusted attrition rate calculated after setting aside 21 Vietnamese-American mothers from wave 1 who opted not to participate in wave 2 data collection.

equaled 706 women across the three state sites. Complete data were collected during the home visits for 61% of the original sample (556 mothers and children). These home visits were scheduled after completing the maternal interviews which were conducted by phone.

Table 3.2 details participation rates at wave 2 for each state and county. Sample attrition was lowest in Connecticut: just 13% of the mothers participating in the wave 1 interview did not participate in the wave 2 phone interview. Attrition was highest in San Jose, where we lost 24% of the original mothers. Our research team's ability to schedule and complete home visits – a crucial step in that children's cognitive and language development was assessed in the home – also varied across the five county sites. In New Haven, we obtained consent from just 49% of the original mothers participating. This ranged upward to 70% of the Tampa mothers who agreed to a home visit.

Did this loss of families significantly alter the character of the overall sample? Table 3.3 details basic demographic features of the mothers and children who remained in the wave 2 sample, compared to those who were lost. The figures in italics indicate characteristics that differ significantly ($p<.05$) between retained and lost families. In Connecticut and California, for example, the mothers lost from the wave 2 sample were significantly older than those we retained.

We also retained a higher percentage of Latina mothers in the California sample, compared to their smaller representation in the original sample. This is largely due to the fact that we dropped 21 Vietnamese-American mothers who had participated in the wave 1 exercise. All lived in San Jose. Even after eight months of outreach work, many of these women remained reluctant to participate or schedule home visits. Some had moved and could not be located. Since the Vietnamese-American mothers had been over-sampled at wave 1, their high attrition rate did not seriously affect the overall representativeness of the San Jose sample.[46]

The final pair of columns indicates that measures of children's early language and cognitive proficiencies did not differ between the children retained and those lost from the sample. On one child measure pertaining to the Connecticut sample we did observe that retained children scored higher at wave 1 than those who left the sample. Overall, this is good news from a sampling perspective: we see little evidence that sampling

Table 3.3 Mothers and children retained or lost from family samples—wave 1 attributes (means in italics are significantly different)[1]

		Connecticut families (n=251 at wave 2)	California families (n=297 at wave 2)	Florida families (n=154 at wave 2)
Mother's age (years)	Retained	25.1	27.6	26.6
	Lost	26.9	28.6	26.4
Focal child's age (months)	Retained	*23.9*	*27.9*	29.1
	Lost	*29.4*	*30.9*	30.3
Mother currently working	Retained	50.2	19.9	27.3
	Lost	50.6	15.8	18.6
Mother completed high school	Retained	20.5	39.2	50.6
	Lost	19.1	34.2	48.8
Percentage Latina	Retained	20.6	*42.2*	12.3
	Lost	19.1	*19.2*[2]	20.9
Percentage African American	Retained	39.4	*37.3*	49.3
	Lost	38.8	*15.4*	42.1
Child language development[3]				
Word comprehension	Retained	-.01	-.04	-.03
	Lost	.05	.11	-.02
Complex communication A	Retained	*.08*	-.07	-.03
	Lost	*-.58*	-.06	.04
Complex communication B	Retained	.01	.02	-.01
	Lost	-.05	-.14	.18

[1] Between-group means in italics are statistically significant at $p<.05$ or stronger.

[2] This difference in Latina and African-American shares is partially attributable to dropping 21 Vietnamese-American families from wave 2.

[3] Standardized z-scores for word usage, gesturing, and oral sentence complexity subscales from the MacArthur Communicative Development Inventory. For measurement details at wave 1, see: Fuller, Kagan et al. (2000). Remember the Children.

attrition has biased the wave 2 sample in any particular direction, except that we have a higher proportion of Latino families than before.

Learning about the Lives of Mothers and Young Children at Wave 1 (1998)

During wave 1 data collection we conducted interviews with mothers and visited their youngsters' child care settings. At the child care visits we also directly assessed each child's early language and cognitive proficiency. This two-step data collection approach allowed the opportunity to collect information on the following topics:

The mother—her home and work contexts

- A *demographic profile*, including the mother's own family background, age, ethnicity, school attainment, marital and fertility history.
- Prior *work experience* and current employment status, as well as *engagement with the welfare system*, from job preparation activities to contacts with caseworkers and involvement with allied family support programs.
- Earned *income* and economic resources stemming from jobs, cash aid, food stamps, tax credits, and other income-support programs, as well as monthly *spending* on food, rent, clothing, transportation, and child care.
- The mother's *immediate social context*, including household composition, various actors who provide social support, and patterns of interaction with kith and kin members outside the home.
- Indicators of *maternal and child health*, including assessment of the mother's emotional well-being and access to local health services for mother and child.

The young child—home and child care contexts

- *Parenting practices* related to the children's early development, including reading practices, story telling, visits to the library, and the ways in which mothers discipline their children.

- The mother's *feelings of affection* toward, and *emotional rewards* from, the focal child, as well as sources of conflict and stress inside the household that may affect the child's well-being.
- The mother's *prior use of child care* and how arrangements were shifting as many mothers entered the labor force.
- Several facets of the mother's *current child care arrangement*, including the type (center or home-based), hours the child spent with a nonmaternal caregiver, the mother's views of the caregiver, and whether she or a public agency paid for the arrangement.
- A variety of observational measures of *child care quality* were used during our half-day visit to the setting, including the presence of learning activities, the character of social interaction between the child and caregiver, and recorded snapshots of the kind of play and learning activities in which children were engaged.
- Mothers' reports on children's *social problems* and positive behaviors, as well as indicators of early *language and cognitive development*. In addition, we directly assessed the child's language proficiency in terms of word knowledge, comprehension, and sentence complexity for toddlers.

Details on these domains, the corresponding measures employed, and descriptive results for families and child care quality appear in our wave 1 technical report, *Remember the Children: Mothers Balance Work and Child Care under Welfare Reform*, distributed in February 2000.[47]

Learning about the Lives of Mothers and Young Children at Wave 2 (2000)

Given our fundamental interest in how the lives of mothers and young children have changed under welfare reform, we repeated many of the maternal interview questions and child assessments during wave 2 data collection. At wave 2 we shifted from visiting child care settings to visiting families in their homes. These visits were very helpful in meeting each mother again face-to-face and advancing a feeling of trust and familiarity.

The home visits allowed the opportunity to conduct thorough assessments of the child's cognitive and social development using multiple measures. In addition, a wider range of assessment tools could be used at wave 2, since the focal children were now between 2½ and 5 years-old. Child assessment techniques, considered at wave 1, are more limited for infants and toddlers for large-scale field studies. The child measures administered during the wave 2 home visits included:

- The *Bracken Basic Concept Scales (BBCS-R)* to assess a variety of cognitive proficiencies. The school readiness composite includes basic knowledge of letters, colors, shapes, simple comparisons of objects. For sufficiently proficient children, more challenging subtests are administered which cover recognition of emotions (using pictures of children), descriptors of texture and various materials, quantities and arithmetic concepts, knowledge of time and sequential events.[48]
- *Familiarity with children's books and print concepts.* We talked with each child about one particular story book to assess basic knowledge of where the story begins, the location of the title page, as well as assessing listening comprehension and reactions to a passage from the book that was read out loud by our field researcher. This measure, borrowed from school readiness measures developed for the national evaluation of Head Start, gauges youngsters' exposure to children's books and their proficiency in responding to text, such as understanding the facts, the sequence of events, and ideas embedded in stories.[49]
- Mother's reports of *child's school readiness skills*. During the home visit we asked the mother several questions about the focal child's cognitive proficiencies, including knowledge of numbers and counting, simple writing of letters and one's name, drawing pictures rather than scribbling, and openness to new social interactions.
- *Social problems and positive social behaviors.* The Child Behavior Checklist (CBCL 2/3) was administered to assess youngsters' social development and behavioral problems. This relies on mothers' reports of the severity of 50 possible behaviors or emotions that young children may exhibit that indicate delayed social maturity. In addition, mothers reported on the strength of positive behaviors possibly displayed by the child.

During the wave 2 home visits we assessed the mother's own language and cognitive proficiencies, administering the Peabody Picture Vocabulary Test (PPVT) in English or Spanish. Like the Bracken instrument for children, the PPVT for adults is scored against national norms and percentile rankings, comparing our sample with nationwide samples of adults who have taken the PPVT.

We expanded the maternal interview at wave 2 to learn more about the kinds of jobs that women had entered and how they liked working full or part-time. We added a battery of questions regarding the neighborhoods in which mothers are trying to effectively raise their young children. This yielded much information on how the mother perceives the safety, physical conditions, social norms, and child-friendliness of her immediate community. Our earlier analysis of wave 1 data illuminated how local communities and the character of a family's census tract can make a difference in key behaviors, such as the type and quality of child care that is selected. See Appendix 1 for a complete listing of measures utilized at wave 1 and wave 2.

Contrasting Lives: Diverse Women with Varying Work Experience

Several research teams in recent years have illuminated how a diverse range of women (and some men) move into welfare programs. The National Survey of American families found that among welfare recipients interviewed in 1997 and 1999 one quarter were drawing cash aid for the first time; another fifth had been on welfare only sporadically in prior years; about half had received aid continuously for more than two years.[50] And we know from earlier work that new entrants and intermittent enrollees face fewer barriers to entering the job market – compared to long-term aid recipients who typically confront multiple barriers, ranging from less education to low self-confidence and emotional depression.

Similarly, the social environments of young children vary widely among low-income communities and households. These differences can be apparent in both home and child care settings. And we know that more disadvantaged children tend to benefit most from nurturing and stimulating child care settings, at least in terms of their cognitive and language development.[51]

For these reasons we split mothers between those *with recent work experience* from those who reported *no recent experience* in a job. Work experience was gauged in the year prior to entering their welfare-to-work program. In Connecticut, for example, we will see that the Jobs First program held positive effects for the roughly half of women who reported no work experience in the year prior to entry; but those who had held a job during this previous year benefited much less. Similarly, MDRC's overall evaluation of the Jobs First program, completed in February, 2002 and drawing on a wider sample of participants, found discernible effects for those mothers with the most barriers to entering and remaining in the labor force.[52]

In California and Florida, prior work experience made less difference in how mothers' lives changed between wave 1 and wave 2 interviews.[53] But occasionally differences between these two subgroups are apparent, and these will be detailed in Section 5.

The Wave 2 Sample: Characteristics of Mothers and Children

Connecticut families

We begin with the Connecticut family sample. Remember that the Jobs First half of the sample had entered this welfare experiment three years prior to the wave 2 maternal interviews, about 18 months longer than the California and Florida mothers. And Connecticut offers true experimental data. Basic characteristics of the Connecticut mothers and children are reported in Table 3.4. We split the women between those who reported recent work experience versus those with no recent experience.[54]

Mothers with recent work experience, in the year prior to random assignment, were two years younger than women with no recent experience. Note that paired numbers in italics indicate that group differences are statistically significant ($p<.05$ or stronger). The focal children in Connecticut were statistically equal in age—45 and 51 months-old—between the two work-experience groups.

The levels of work experience also differentiate mothers in terms of their ethnicity and education level. Half the women with no recent work experience had not completed high school, compared to 36% of those with recent work experience. One-third of all women with no recent experience are African American, compared to 44% among those with recent experience. The converse is true for Latina mothers.

Mothers with recent work experience were more likely to be employed at wave 2 (three years after random assignment), less likely to still be drawing TANF cash aid, and they enjoyed higher levels of total income, compared to those women with no recent experience.

Prior work experience was not related to mothers' PPVT scores. This is not surprising, given that language and cognitive proficiencies develop over a long stretch of time, from early childhood to early adulthood. The overall level of these percentile scores is important to note. Connecticut mothers with recent work experience scored at the 27th percentile, and those with no recent experience were at a statistically equal level, the 26th percentile. This means that just under three-fourths of all adults in national samples score above the average (mean) woman in the Connecticut sample.

The average woman with recent work experience scored 15.2 on the emotional depression scale (CES-D), compared to 14.2 for those with no recent experience. A cut-off score of 16 is used by clinical psychologists to determine whether "depressive symptoms" are sufficient to warrant psychological aid of some kind.[55]

At wave 2 almost three-fourths of the mothers were using child care for at least 10 hours per week. This utilization rate was significantly higher for mothers with recent work experience, due to the fact that they were more likely to be employed at wave 2. One-fourth of the focal children were enrolled in a center-based program at the wave 1 and the wave 2 points of data collection.

Table 3.4 Characteristics of Connecticut families by mother's prior work experience (means and standard deviations reported except for percentages; significant differences in italics[1])

	All Mothers	In the year prior to random assignment: Mothers with recent work experience [n=135]	Mothers with no recent work experience [n=119]
Demographic characteristics			
Mother's age at wave 1 (years)	25.4	*24.4*	*26.5*
		(6.0)	(6.9)
Never married (%)	73	71	75
Child's age at wave 2 child assessment (months)[2]	48	45	51
Mothers without a high school diploma (%)	*43*	*36*	*50*
Ethnicity and language			
African-American mothers (%)	39	*44*	*33*
Latina mothers (%)	19	*13*	*27*
Household economy and welfare participation			
Currently employed at wave 2 interview (%)	64	*69*	*58*[3]
TANF cash aid amount, at wave 2 ($)	199	*171*	*245*
	(294)	(316)	(276)
Total income, earned plus benefits per month ($)	999	*1,177*	*740*
	(174)	(822)	(654)
Mother's cognitive proficiency and mental health			
PPVT standardized percentile score	26.6	27.0	26.1
	(21.7)	(21.8)	(21.6)
Maternal depression score at wave 2 (CES-D)	14.7	15.2	14.2
	(9.6)	(8.6)	(10.4)
Child care			
Mothers using child care at least 10 hrs/wk at wave 2 (%)	72	*78*	*64*
Using center program at wave 1 and wave 2 (%)[4]	24	*25*	*22*

Note: Overall count of Connecticut families (n) equals 254 at wave 2. Sample sizes vary for some variables.

[1] Significant at p<.05 or stronger.

[2] Average of four months elapsed between wave 2 maternal interview and home visits when child assessments were conducted.

[3] Marginally significant at p<.10.

[4] Based on 241 mothers (n) who reported on type of child care at wave 2.

California and Florida families

The same features of California and Florida families are reported in Table 3.5. Throughout this report we combine families from the two states to maximize statistical power, then separate the results by county. The mean focal child was just 46 months of age at the wave 2 home visit.

Over four in ten of these California and Florida mothers (44%) had not completed high school or passed the GED. These shares differ between the two subgroups: 54% of the women with no recent work experience had not completed high school, compared to 39% among those with recent work experience ($p<.05$). About 87% indicated that English was their

Table 3.5 Characteristics of California and Florida families by mother's prior work experience (means and standard deviations reported except for percentages; significant differences in italics[1])

	All Mothers	In the year prior to wave 1 interview: Mothers with recent work experience [n=295]	Mothers with no recent work experience [n=157]
Demographic characteristics			
Mother's age at wave 1 (years)	27.2	26.9	27.7
	(6.3)	(6.1)	(6.6)
Never married (%)	62.4	63	66
Child's age at wave 2 (months)	45.6	44.7	47.1[2]
	(9.9)	(10.0)	(9.6)
Mothers without a high school diploma (%)	44	*39*	*54*
Ethnicity and language			
African-American mothers (%)	41	*45*	*34*
Latina mothers (%)	32	*26*	*43*
Mothers whose home language is English (%)	87	90	83
Household economy and welfare participation			
Currently employed at wave 2 interview (%)	52.9	*59*	*41*
TANF cash aid amount, at wave 2 ($)	444	*412*	*488*
	(209)	(198)	(219)
Total income, earned plus benefits per month ($)	1,041	1,057	1,008
	(509)	(547)	(555)
Mother's cognitive proficiency and mental health			
PPVT standardized percentile score	23.5	24.5	21.6
	(19.5)	(20.2)	(18.0)
Maternal depression score at wave 2 (CES-D)	16.8	17.3	15.8
	(10.7)	(10.6)	(10.9)
Child care			
Using child care at least 10 hrs/wk at wave 2 (%)	83	85	79[3]
Mothers using center program at wave 1 and wave 2 (%)	21	*24*	*15*
Child care provider with a high school diploma, wave 1 (%)	64	*69*	*52*

Note: Overall count of California and Florida families (n) equals 452 at wave 2. Sample sizes vary for some variables.

[1] Significant at p<.05 or stronger, unless otherwise noted.

[2] Significant at p<.06.

[3] Significant at p<.10.

home language. Overall, 32% of the mothers self-identified as Latinas, and 41% identified themselves as African American.

When the wave 2 interviews were conducted, over 52% of the mothers reported being currently employed, a rate that differs significantly for those with and without recent work experience. Among those with recent work experience, 59% were currently employed at wave 2, compared to just 41% among those with no recent experience. Interestingly, differences in

total income—factoring-in wages from jobs and income-support programs—were not significant, averaging $1,041 per month.

These mothers scored just above the 23rd percentile on the PPVT. As with the Connecticut scores, this level means that the California and Florida women fell in the lowest one-quarter of all adults who have been assessed nationwide on this gauge of cognitive proficiency. Mothers with recent work experience scored almost 3 percentile points higher than those with no recent experience. But this difference is not statistically significant.

The average mother scored 16.8 on the maternal depression scale (CES-D). Remember that the cut-off score of 16 is used by psychologists to determine whether a clinical remedy is warranted to combat this disabling level of depression. Just over half the women hit this worrisome cut-off score.

The two groups differ significantly when it comes to child care utilization and types of care selected. At wave 2, fully 83% of all sampled mothers were using a child care provider at least 10 hours per week. This was slightly higher for mothers with recent work experience (and only marginally significant, $p<.10$). About one-fifth of all mothers were using a center-based program at both wave 1 and wave 2, and these shares differed significantly between the two subgroups: 24% of those with recent work experience, versus 15% with no recent experience, had enrolled the focal child in a center at both points in time. We later discovered that center attendance over time is predictive of children's cognitive growth between wave 1 and wave 2, as detailed in Section 5.

Finally, we can go back to the wave 1 child care data to look at certain indicators of quality experienced by the two groups. The last row of Table 3.4, for instance, reports on whether the caregiver used at wave 1 had a high school diploma or not. We see that almost two-thirds did. But among women with no recent work experience, just under half the caregivers selected had not completed high school. This compares to only 31% of the caregivers, selected by the mothers with recent work experience, who had not completed high school. This is linked to the fact that the latter group was more likely to have enrolled their child in a center-based program, rather than a home-based arrangement.

Next we detail wave 2 findings for the Connecticut families, asking how have their lives may have changed and whether participation in welfare-to-work made a difference?

SECTION 4

MOTHERS AND CHILDREN IN CONNECTICUT

Has welfare reform changed their lives?

Overview: Detailing the Economic and Social Well-being of Families

We first report on findings from the Connecticut families—focusing on how mothers and young children were faring three to four years after entering this state's welfare reform experiment. These results stem from three interwoven data collection efforts, embedded within this true experiment involving the random assignment of women to either the Jobs First program or a control group that lived under the old AFDC rules.

First, in-depth wave 2 interviews with mothers were conducted *three years* after they had entered Jobs First. This involved a set of interview questions asked by phone, under the direction of the Manpower Demonstration Research Corporation (MDRC). Then, our project field staff, based at Yale University, proceeded to arrange home visits with each family. This second data collection included additional questions for the mother and the battery of early learning assessments conducted with the focal child.[56]

Third, MDRC compiled administrative data on all families who participated in the original wave 1 interviews. These data were provided by the Department of Social Services and the office that oversees child care programs for the state. This information details each mother's employment status, earnings, and cash aid for each three-month quarter following random assignment. These data were run from the point at which each mother was randomly assigned to Jobs First or the control group, past the three-year (wave 2) point at which we interviewed the mother again, and end *four years* after the random assignment date extending into 2001. We refer to this four-year end point as the 16th quarter.

We were able to analyze data on the original 293 families who entered our portion of the Connecticut study. Interviews at wave 2 —three years after random assignment—were completed for 254 mothers. The half of the sample that was randomly assigned to Jobs First faced new requirements and rules, as sketched in Section 2: mandatory attendance at job preparation activities or quick job placement, the ability to retain earnings up to the poverty line, and the 21 month time limit for drawing cash aid. Women randomly assigned to the control group lived under the old welfare (AFDC) rules, facing less pressure to work, no time limit on cash aid, and weaker incentives to work, given that they could retain less of their earned income.

Our analysis centers on the question of whether participation in the Jobs First program yielded positive effects on (1) mothers' economic well-being, (2) reduced reliance on cash assistance, (3) the quality and supportive nature of their homes, and (4) the early learning and school readiness of their young children. That is, we report the extent to which these sets of indicators are significantly different between the *Jobs First* and the *control* group on a variety of economic, social, and child development measures.

We also explore differing effects between the roughly half of sampled women who had *recent work experience* in the year prior to entering the experiment, versus those women who had *no recent work experience*. In Section 3 we detailed how these two groups differ along basic demographic lines. We follow MDRC's lead from their analysis of the larger sample of participants (mostly those with school-age children). The MDRC evaluation team found that Job First's positive effects were experienced mainly, sometimes exclusively, by participants who had less work experience and more numerous barriers to employment, compared to those women who had stronger track records in the labor force.[57] The analysis detailed below confirms for our sample of women—those with preschool-age children—that program effects are markedly different for the more disadvantaged half that did not work in any month during the year prior to random assignment. Jobs First had very little effect for those women with recent work experience.

Our analysis, in addition, examines *change* in families' economic and social indicators between wave 1 and wave 2, since most of the interview questions and home visit items were posed at both points in time, separated by 18 to 24 months between interviews. Thus much of the descriptive report that follows illustrates the extent to which mothers' and children's lives changed over this period of time, and details whether Jobs First contributed to positive or negative changes in their daily lives. In addition to documenting any discernible change in their work and social lives, unfolding inside of three years, we can then extend out to the fourth year to report on employment, income, and welfare support.

Our presentation of Connecticut findings is organized around six topical areas:

- Section 4A. Mothers' *employment, earnings, economic support* from other household members, and mother's on going *involvement with the welfare office and income-support programs.*
- Section 4B. *Mother's social environment*, including household composition, marriage and birth rates, sources of social support, and the qualities of their immediate neighborhoods.
- Section 4C. The nature of *mother-child interactions*, including the mother's time with the focal child, parenting practices, approaches to discipline, and stress levels.
- Section 4D. Maternal and child *health*, including the mother's emotional well-being.
- Section 4E. *Child care arrangements*, including type of care selected by the mother, migration among types of care between wave 1 and wave 2, cost and subsidy flows, and out of pocket spending.
- Section 4F. *Children's early learning and social development*, including cognitive and language proficiencies, school readiness skills, and social behaviors.

As a rule, we include graphical displays when statistically significant differences are observed for the Jobs First (experimental) group relative to the control group ("E-C differences"). In addition, when the magnitude of change between wave 1 and wave 2 is statistically significant, we display these temporal differences.[58] We note in the text when the lack of statistically significant differences between groups or over time holds important implications. Finally, we decided against splitting the Connecticut results between the two research sites: Manchester and New Haven. Less than a third of the entire Connecticut sample was drawn from Manchester, equaling less than 100 families on many measures at wave 2. We detected very few differences between the two sites.

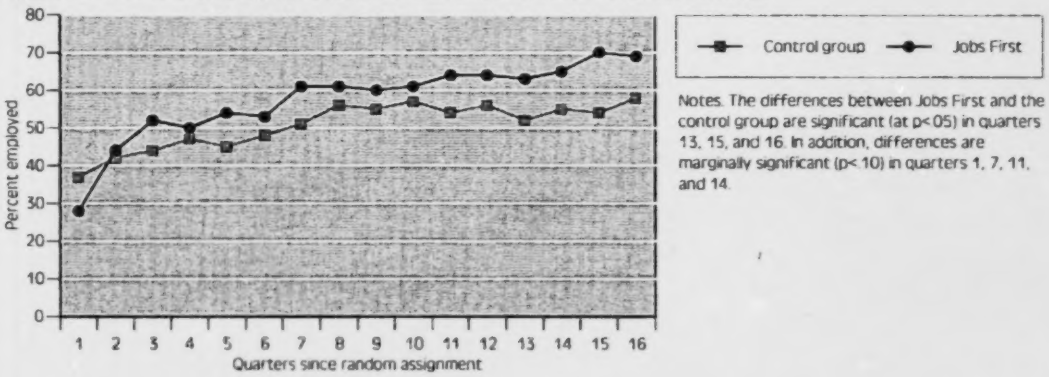
SECTION 4A
Mothers' Employment, Wages, Income Supports, and Welfare Engagement

Employment. We first turn to the share of mothers who were employed—defined as having earnings reported to the state's unemployment insurance system—for each quarter after being randomly assigned in late 1996 or 1997 (Figure 4.1). By the 7th quarter (21 months after random assignment) the Jobs First group had moved significantly above the control group, displaying employment rates of 61% and 51%, respectively ($p<.07$). By the 16th quarter—four years after women entered the program experiment—69% of the Jobs First and 58% of the control group were employed, respectively ($p<.04$).

Note that the employment rate for the control group moved upward, rising from 37% employed in the first quarter after random assignment to 58% in the 16th quarter. This, despite the absence of pressure on mothers from caseworkers to find a job. This may, in part, reflect the fact that women arrive at the welfare office at low points in their lives, but often rebound quickly, at least in terms of finding low-wage jobs. It also sets in context the employment gains for California and Florida mothers on which we report in Section 5.

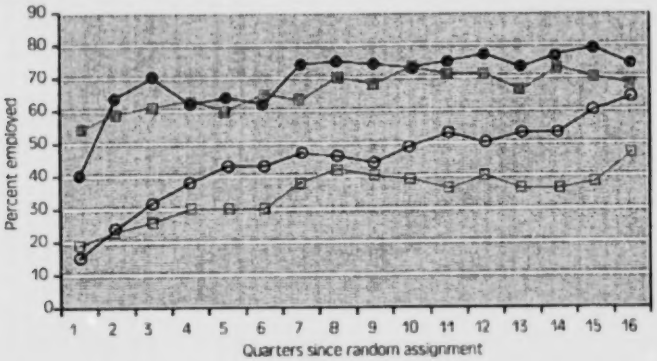
We then split the Connecticut mothers between those *with recent prior work* experience and those with *no recent work experience.*[59] The top pair of lines in Figure 4.2 displays the percentage of mothers employed, split by the Jobs First and control groups, for those *with recent work experience.* At each quarter, the (E-C) differences between the Jobs First and the control groups are insignificant. But for the bottom pair of lines, plotting employment rates for mothers with *no recent work experience*, we see significant differences in five of the final six quarters (at $p<.05$ or stronger).

Figure 4.1 Mothers' employment status since random assignment, Connecticut



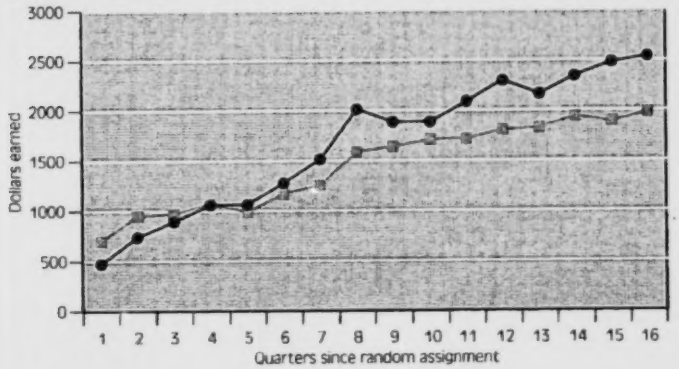
Notes. The differences between Jobs First and the control group are significant (at p<.05) in quarters 13, 15, and 16. In addition, differences are marginally significant (p<.10) in quarters 1, 7, 11, and 14.

Figure 4.2 Mothers' employment status since random assignment by work experience level, Connecticut


Percent employed
Quarters since random assignment
Jobs First - prior work experience
Control Group - prior work experience
Jobs First - no recent work experience
Control Group - no recent work experience

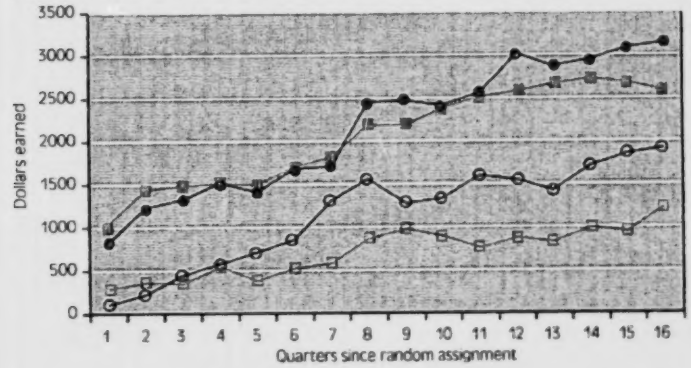
Notes: The differences between Jobs First and the control group mothers with prior work experiences are not significant. The differences between Jobs First and the control group mothers with no recent work experiences are significant (at $p<.05$) in quarters 11, 13, 14, 15, and 16. In addition, differences are marginally significant ($p<.10$) in quarters 1, 5, and 6.

Figure 4.3 Mothers' earnings from jobs since random assignment, Connecticut



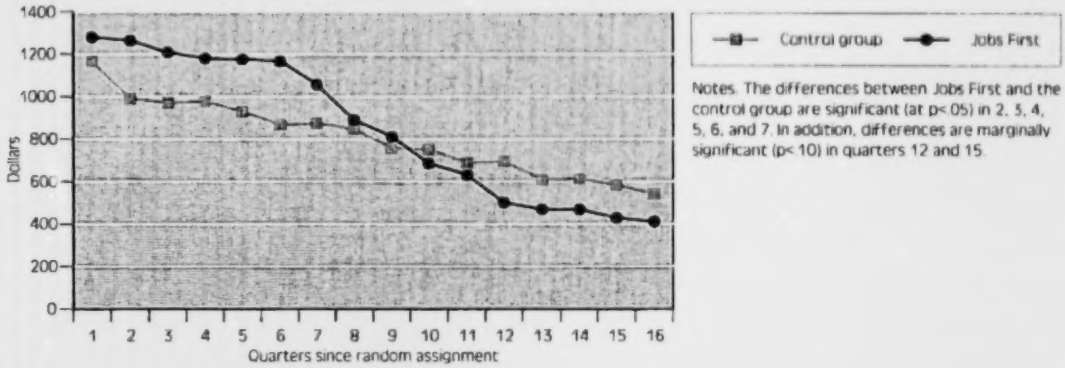
Notes: The differences between Jobs First and the control group are marginally significant ($p<.10$) in quarters 15 and 16.

Figure 4.4 Mothers' earnings from jobs since random assignment by work experience level, Connecticut


Dollars earned
Quarters since random assignment
Jobs First - prior work experience
Control Group - prior work experience
Jobs First - no recent work experience
Control Group - no recent work experience

Notes: The differences between the Jobs First and control group with prior work experience are nonsignificant. The differences between Jobs First and the control group with no recent work experience are significant (at $p<.05$) in quarters 11 and 15. In addition differences are marginally significant ($p<.10$) in quarters1, 5, 7, 12, 13, 14, and 16.

Figure 4.5 Mothers' TANF cash assistance since random assignment, Connecticut



Notes: The differences between Jobs First and the control group are significant (at p<.05) in 2, 3, 4, 5, 6, and 7. In addition, differences are marginally significant (p<.10) in quarters 12 and 15.

Four years after random assignment, in the 16th quarter, 64% of the Jobs First group with *no recent work experience*, versus 47% of the control group were employed ($p<.03$). This closely parallels MDRC's finding for their wider sample of clients: Jobs First effects for participants with numerous employment barriers were significant in some cases, while very few effects from Jobs First could be discerned for clients with recent experience and fewer hurdles to re-entering the labor force.[60]

Wages and earned income. Mothers' levels of earned income, gleaned from the same administrative data, follow similar trajectories. Income advantages experienced by the Jobs First mothers appear two years after random assignment (8th quarter), soon after the first women hit the 21 month time limit, although at statistically insignificant levels (Figure 4.3). This income advantage became marginally significant ($p<.10$) by the 15th quarter, compared to the control group.

These differences in earnings are powered by gains experienced by women with less work experience, as illustrated in Figure 4.4. The lower pair of lines again plots earnings for Jobs First and control groups who had no work experience in the year prior to random assignment. Significant gains in earnings for these Jobs First participants appear by the 7th quarter, persist and become stronger for quarters 11 through 16. At the end of the four-year period, this more disadvantaged Jobs First group is earning just under $700 more per quarter than their corresponding segment of the control group. Among women with prior work experience, Jobs First did *not* significantly raise earnings in any quarter.

Income supports – *TANF cash aid, food stamps, and tax credits.* The Jobs First program is quite innovative in one important way: clients can retain 100% of their earnings and still receive cash aid, provided that their income does not exceed the poverty line. This creates an incentive to work, since both earnings and cash aid can be retained. This carrot may have spurred mothers with little recent work experience to move into the labor force and raise their earned income. This relatively generous "income disregard" feature also may have created an incentive to remain on the TANF rolls.

In Figure 4.5 we see how the Jobs First group drew considerably more support from TANF through the 7th quarter as some women approached their 21 month limit but continued to draw cash aid.[61] But then, the Jobs First group dips down below the control group in terms of cash aid being drawn. At quarter 16—four years after random assignment—the control group is drawing just $541 quarterly in TANF aid, and the Jobs First group is drawing $411 per quarter, on average (falling short of statistical significance).

This diminishing reliance on cash aid, soon after random assignment, was being driven by the *control group* who left cash aid at a higher rate than the Jobs First group—another indication of the incentive to get a job *and* remain on welfare (Figure 4.6). This pattern continued three years out when all but one group showed the same propensity to leave welfare, or lower their draw on TANF benefits per quarter. The exception is for the segment of the control group with no recent work experience. They did reduce reliance on cash aid, but less so compared to the other three groups at three years after random assignment (that is, in the 12th quarter).

As employment rates rose steadily, the use of food stamps fell among women in both Jobs First and the control group (Figure 4.7). The most remarkable decline was among Jobs First members with prior work experience. Among this particular

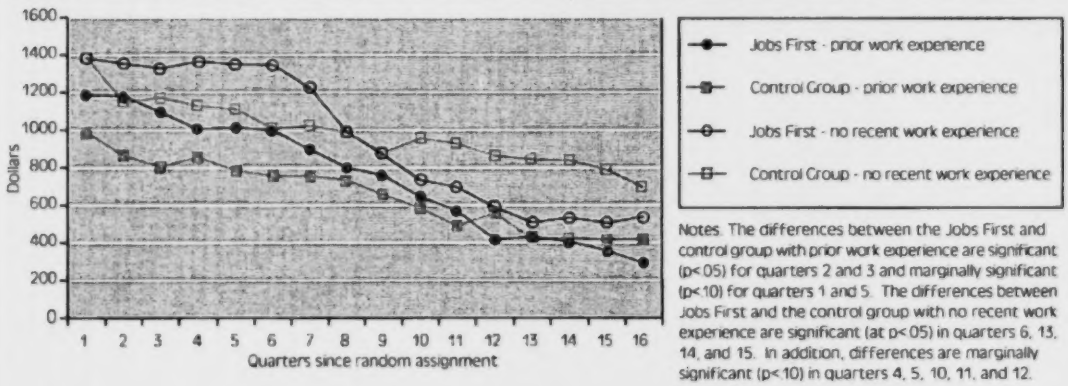
group, the percentage of mothers drawing food stamps fell from 73% at random assignment to 31% four years later. The corresponding segment of the control group started at about the same level, then declined to 42% four years later. The other half of the Jobs First group—those with no recent work experience—relied more heavily on food stamps in the initial two years, compared to the control group.

Families' diminishing reliance on food stamps may be a sign of success, at least for those women who experienced significant gains in earnings. On the other hand, some women may be detaching from the broader family-support system once they go off cash aid or hit the 21 month limit. They may mistakenly assume that the time limit applies to food stamps or Medicaid, not exclusively to TANF assistance. More research is required to understand what is motivating mothers to disengage from the food stamp program

Another indication that women are detaching from wider family supports is their declining participation in the federal WIC program. The segment of the Jobs First group with no recent work experience—those benefiting most from rising employment rates—was significantly less likely to participate in WIC (43%), compared to the corresponding segment of the control group (54%; $p<.05$). Participation rates remained statistically equal between the Jobs First and control groups with prior work experience, 48% and 52%, respectively.

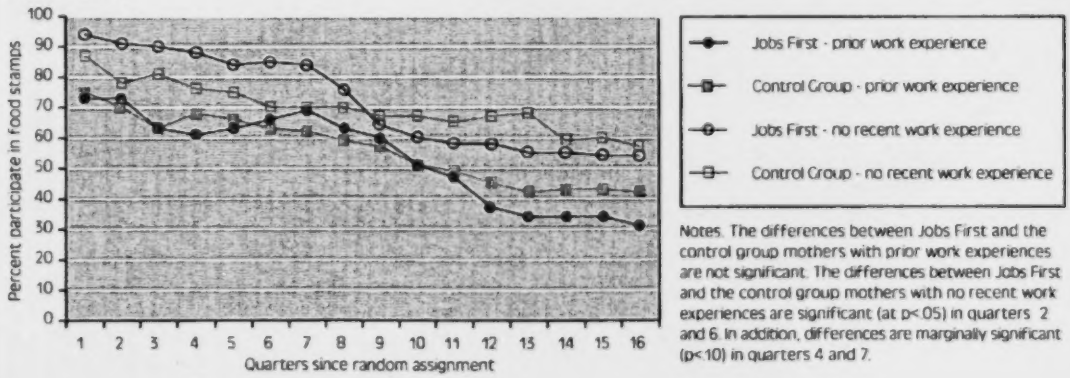
Despite gains in employment and income—for women with no recent work experience—we observed no difference between the Jobs First group and the control group in their use of the earned income tax credit (EITC). A major difference is apparent, not altogether surprising, between women with and without recent work experience. Three

Figure 4.6 Mothers' TANF cash assistance since random assignment by work experience level, Connecticut



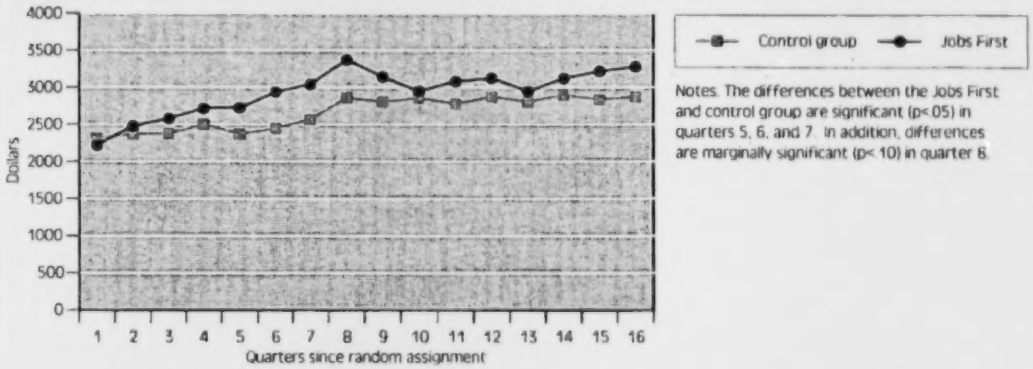
Notes: The differences between the Jobs First and control group with prior work experience are significant ($p<.05$) for quarters 2 and 3 and marginally significant ($p<.10$) for quarters 1 and 5. The differences between Jobs First and the control group with no recent work experience are significant (at $p<.05$) in quarters 6, 13, 14, and 15. In addition, differences are marginally significant ($p<.10$) in quarters 4, 5, 10, 11, and 12.

Figure 4.7 Family participation in food stamp program since random assignment by work experience level, Connecticut



Notes: The differences between Jobs First and the control group mothers with prior work experiences are not significant. The differences between Jobs First and the control group mothers with no recent work experiences are significant (at $p<.05$) in quarters 2 and 6. In addition, differences are marginally significant ($p<.10$) in quarters 4 and 7.

Figure 4.8 Mothers' total income since random assignment, Connecticut



Notes. The differences between the Jobs First and control group are significant ($p<.05$) in quarters 5, 6, and 7. In addition, differences are marginally significant ($p<.10$) in quarter 8.

years after random assignment (at the wave 2 interview), 64% of women with recent work experience reported income from the EITC in the past year, compared to 43% among those with no recent experience. But no overall E-C difference was observed for either work-experience subgroup.

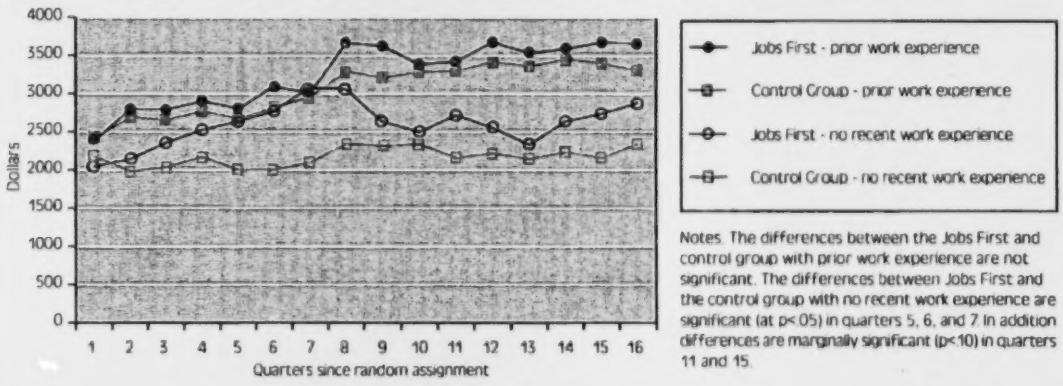
A slightly larger share of women in the Jobs First group drew child support payments from fathers (31%), compared to the control group (23%). But this difference failed to reach statistical significance. In addition, mothers with no recent work experience were more likely to draw some income from kin members or friends (15%), compared to women with prior experience (7%).

Total income. Jobs First had no significant effect on mothers' total income—after factoring in earnings and income supports—with the exception of one important period (Figure 4.8). In quarters 5, 6, and 7 total income was significantly higher for the Jobs First group. This income advantage peaked at the 7th quarter, just as many women hit their 21 month time limit.[62] By the 9th quarter and thereafter no significant differences were observed.

We again see that this income advantage was felt largely by women with no recent work experience (Figure 4.9). Among these mothers, total income for the Jobs First group was $860 higher than the control group in the 7th quarter. By the 15th quarter, almost four years after random assignment, this same segment of the Jobs First group was bringing home $584 more than the controls ($p<.10$). On the other hand, E-C differences among women with recent work experience were never statistically significant over the four-year period.

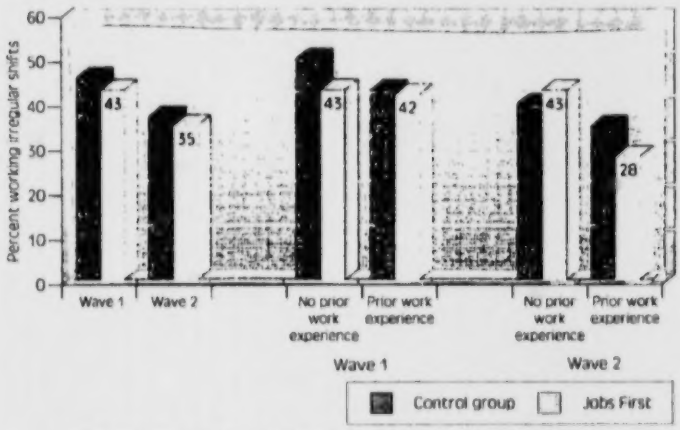
Job quality and stability. The maternal interviews, conducted three years after random assignment, offer additional data on the quality of women's jobs. Many women worked irregular shifts, laboring on weekends, at night, on shifts that rotated from week to week. This holds telling implications for the time that mothers can spend with their young child, and for the kinds of child care arrangements that are sufficiently flexible to accommodate irregular work hours.

Figure 4.9 Mothers' total income since random assignment by work experience level, Connecticut


Jobs First - prior work experience
Control Group - prior work experience
Jobs First - no recent work experience
Control Group - no recent work experience
Dollars
Quarters since random assignment

Notes. The differences between the Jobs First and control group with prior work experience are not significant. The differences between Jobs First and the control group with no recent work experience are significant (at $p<.05$) in quarters 5, 6, and 7. In addition differences are marginally significant ($p<.10$) in quarters 11 and 15.

Figure 4.10 Percent of mothers working irregular shifts, Wave 1 and Wave 2, Connecticut



Notes: Irregular shifts include all work schedules that are not regular, daytime shifts. The differences between Jobs First and the control group are not significant. Analysis based on 222 mothers (n).

Figure 4.10 illustrates that 43% of the Jobs First mothers at wave 1 (18 months after random assignment) were working irregular shifts. By wave 2 (36 months out), 35% were working irregular shifts. For all women with jobs at both wave 1 and wave 2, the percent in irregular shifts fell from 42% to 37% (not shown). Of those working irregular shifts at wave 2, 44% were working evening shifts, 14% were on night shifts, 20% on rotating shifts, 4% on split shifts, and 18% did not have a consistent schedule. While the increased regularity of work between waves 1 and 2 is evident, there is no significant difference between Jobs First mothers and the control group.

Wage levels. Weekly earnings among mothers employed at wave 2—three years after random assignment—were not significantly higher for the Jobs First group relative to the control group, equaling $295 and $271 per week, respectively. Wage levels were marginally lower, however, for the segment of the control group with prior work experience ($234 weekly), compared to this segment of the Jobs First group ($289 weekly but failing to reach statistical significance). Overall, if earnings represented the only source of income, even the average Jobs First family would still be living beneath the federal poverty level.

Translating these earnings into hourly wage levels, we estimated that employed Jobs First mothers earned $9.35 per hour in their current or most recent job at wave 2, and the control group earned $8.40 per hour (not statistically different).[63]

We asked mothers additional questions regarding their current or most recent job during the wave 2 interview. We could not detect E-C differences related to basic qualities of their jobs. The kinds of work found by the Jobs First and control groups appeared to be very similar in the availability of health benefits, sick days, and paid vacation days. Jobs First did not help women move into higher quality jobs, at least not for our sample of mothers with young children. We will return to the health benefits issue—the provision of public Medicaid and employer health plans—in Section 4D below.

The family's broader economic vitality. Beyond employment and wage trends it's important to understand whether the general economic well-being of families is improving over time. One set of indicators that attempts to gauge economic security more broadly relates to food security and food rationing. The U.S. Department of Agriculture uses a standard set of interview questions to assess this facet of economic security.[64] In an earlier paper from the wave 1 data, we found that children's social development in California and Florida was significantly related to this index of food security.[65]

The new wave 2 data from Connecticut reveal no effect from Jobs First on any element of this composite index three years after random assignment, with one exception. Jobs First participants with recent work experience were *more likely* to report that they "often cut the size of meals at home" because they could not afford more food (26%), compared to the corresponding segment of the control group(14%; marginally significant at $p<.07$). Just under 12% of the entire sample visited a food bank or soup kitchen within 12 months prior to the wave 2 interview, but Jobs First participants did not differ from the control group on this measure of economic security.

We also observed that Jobs First participants with no recent work experience had more trouble paying rent, compared to the corresponding segment of the control group. For this segment of Jobs First mothers, 46% reported not paying rent on time at least once during the 12 months preceding the wave 2 interview, compared to 31% of the control group (marginally significant at $p<.08$). No overall E-C difference was observed for the entire sample.

Another revealing indicator of the family's economic security is how much money women have in a savings account. Jobs First members reported $353 in total savings three years after random assignment, on average. The control group reported $497 in savings, an insignificant difference. Yet this low overall

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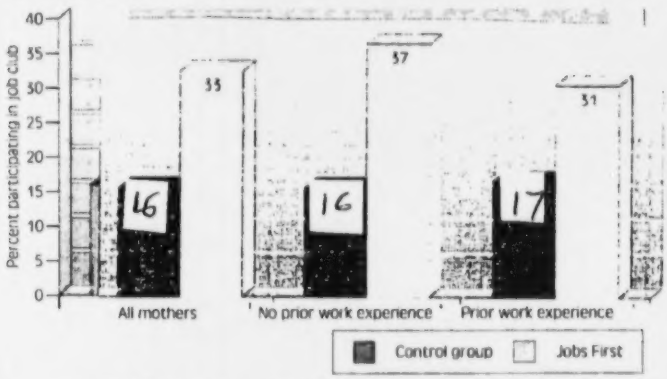
Figure 4.11 Percent of mothers who participated in job preparation activities since random assignment, Connecticut



Notes. The differences between Jobs First and the control group are significant (at p<.05) when comparing all mothers and those with no prior work. In addition differences are marginally significant (p< 10) when comparing mothers with prior work experience. Analysis based on 254 mothers (n) with complete data.

level of savings is notable, especially when placed in the context of the mean level of debt reported by women, averaging just over $4,700. Sources of debt include outstanding car, credit card, rent or mortgage payments.

Engagement with the Jobs First program. At wave 1, mothers reported limited involvement in specific program activities during the prior year. Participation in certain activities, like job clubs (building job preparation skills and confidence), was more likely among Jobs First participants (23%) than control group members (10%). And by the time wave 2 interviews were being conducted, participation in program components had risen significantly: enrollment in job clubs or similar activities increased to 34% of women in the program group since random assignment, compared to 16% of the control group (p<.007; Figure 4.11). This Jobs First effect was slightly stronger among women with no recent work experience.

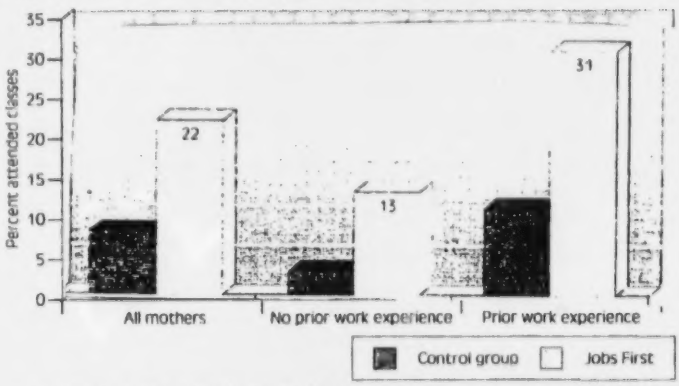
We also discovered that Jobs First held a positive effect on women's propensity to enroll in classroom training programs at community colleges (Figure 4.12). This effect was particularly strong for Jobs First clients with recent work experience: 31% of this portion of Jobs First mothers, compared to just 11% of the corresponding segment of the control group. This finding is unexpected in that some critics of the 1996 reforms argued that a work-first policy emphasis would discourage further educational opportunities. In Connecticut, the opposite has come to pass for our sample of participants.

The messages that women moving into Jobs First heard from their caseworkers are instructive. We report in Figure 4.13 the extent to which mothers "disagreed a lot" to "agreed a lot" (four-point scale) on three different signals that program staff may have communicated to clients. For example, the Jobs First group agreed more strongly that the "staff urged [me] to get off welfare" (panel A; p<.01). This effect was significant for Jobs First participants with no recent work experience (p<.005) but not for those with recent work experience. In panel B we report on agreement levels for "staff urged [me] to get a job as soon as possible." E-C differences were significant (at p<.05 or stronger) for both work-experience subgroups.

The Jobs First group also heard loud and clear that they "could keep welfare and work at the same time" under the program's income-disregard rule (p<.01 or stronger across the groups). Jobs First staff effectively explained the new program's incentive structure – and many women took to heart the attraction of finding a job without losing their welfare check.

How many women hit the 21 month time limit? Do they differ from other clients? Complete case records were not available to ascertain which women hit their 21 month limit on cash aid.[46] This can be estimated, however, by analyzing the

Figure 4.12 Percent of mothers who attended classroom training at some point since random assignment, Connecticut



Notes. The differences between Jobs First and the control group are significant (at p<.05) when comparing all mothers and those with prior work experience. In addition, differences are marginally significant (p< 10) when comparing mothers with no prior work experience. Analysis based on 254 mothers (n) with complete data.

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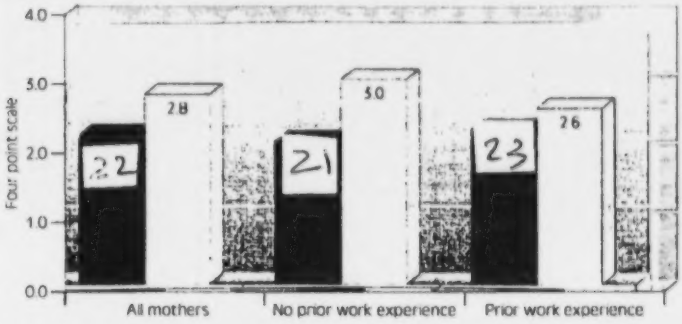
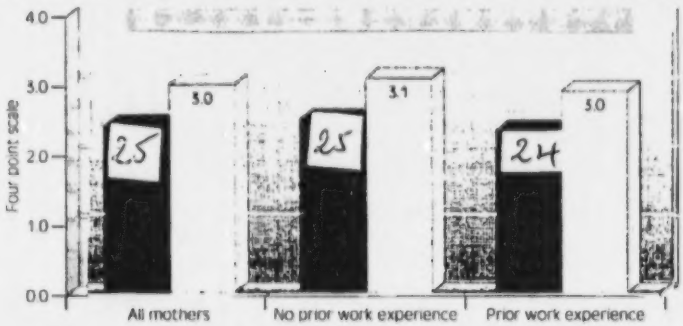
Figure 4.13 - Panel A Caseworkers and staff urged mother to get off welfare, Connecticut



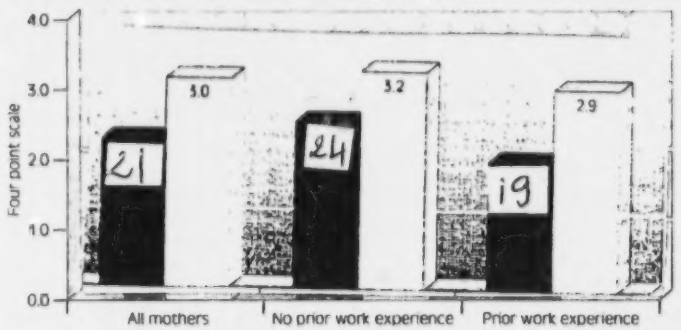
Notes. Differences between Jobs First and the control group are highly significant (at p<.01) before disaggregated and when mothers have no prior work experience. Analysis based on 218 mothers (n) with complete data.

Figure 4.13 - Panel B Caseworkers and staff urged mother to get a job as soon as possible, Connecticut



Notes. Differences between Jobs First and the control group when disaggregated by work experience are significant (at p<.05). Differences between Jobs First and the control group when not disaggregated by work experience are highly significant (at p<.01). Analysis based on 217 mothers (n) with complete data.

Figure 4.13 - Panel C Caseworkers and staff said mother could keep cash aid after finding a job, Connecticut



Notes. Differences between Jobs First and control groups are highly significant (p<.01) when aggregated and when disaggregated by work experience. Analysis based on 217 mothers (n) with complete data.

total number of months that women received cash aid over the four years since random assignment. These may not be consecutive months of cash aid receipt. This distribution is shown in Figure 4.14. The first vertical bar (from left) shows that 17 of our sampled women received just one month of cash aid or less after being randomly assigned (12% of the Jobs First group with complete data).[67] Then, we observe a spike in months-on-aid at 21 months, with high incidence rates on either side—at 20 or 22 months (26% of the Jobs First mothers between 20 and 22 months). And a fair proportion received cash aid for more than 22 months, presumably those who received a waiver or exemption from the time limit.[68]

We have begun to analyze how women who likely hit their time limit, then left Jobs First, may differ from those who exited before reaching their 21-month mark. Table 4.1 contrasts these two groups. Left out are those women who remained on TANF

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aid more than 25 months, presumably under a waiver or exemption. Connecticut's tough time-limit provision may have influenced women with prior work experience to leave the rolls quickly—serving Jobs First's aim of reducing reliance on public assistance.

In Table 4.1 we see that women who left the rolls *before* the 20-month mark were more likely to have recent work experience (60%), compared to the share who left between 20-25 months (just 40% had recent work experience). Otherwise, we did not detect substantial differences between the two groups. Four years out, at the 16th quarter, about one in five women for each subgroup had come back onto cash aid, presumably having conserved months of eligibility or by obtaining an exemption from the 21 month limit.

This initial analysis says nothing about how women fare *after* hitting their time limit and leaving the TANF system. Our particular sample is too small to sufficiently inform this question.

Summary

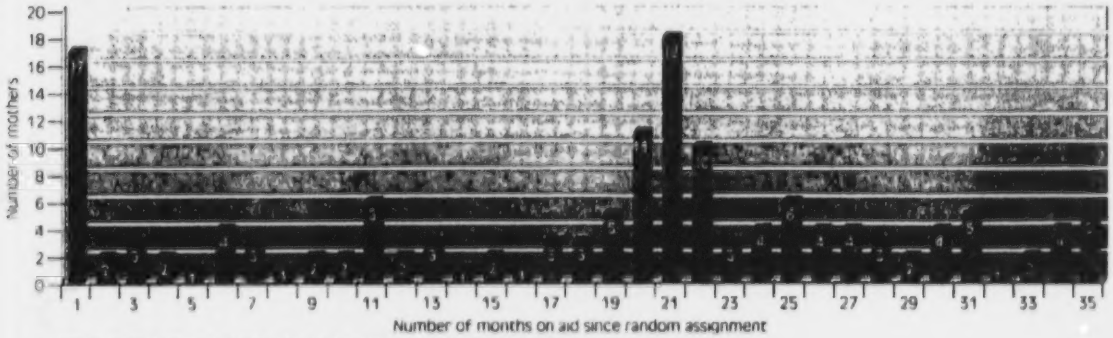
These findings represent encouraging news about mothers of young children who had little work experience in the year prior to entering the Jobs First experiment. This group, compared with their corresponding segment of the control group, experienced important gains three to four years after entering the experiment:

- *Higher employment rates*—64% were working four years after entering the program—compared to 47% for the control group. The overall employment advantage for the Jobs First group was 10%, compared to the overall control group. So, women with no recent work experience benefited even more.
- As employment gains were sustained, we observed significant *improvements in earnings* for this same group. Four years after entering Jobs First, those women with no recent work experience were now earning about $700 more per quarter, compared to the corresponding segment of the control group.
- Total income also was higher for the Jobs First group with no recent work experience—$584 higher quarterly, fours years after random assignment—compared to the corresponding segment of the control group.

Yet several findings raise concerns and may hold implications for policy adjustments to the current Jobs First program. First, *very few economic benefits were observed for Jobs First participants who had some work experience* in the year prior to entry. The only discernible effect when looking at the entire Jobs First group in our sample was a decreased reliance on cash aid. This was clearly an objective of Connecticut's welfare reform agenda. At quarter 16—four years after random assignment—the full Jobs First sample was drawing $130 less in cash aid than the full control group, about $32 a month less reliant on TANF aid. But other than this effect, the overall Jobs First group only occasionally displayed significantly higher employment rates, earnings, or total income. Only when we focus on the most disadvantaged group do we observe consistent E-C differences.

Few program effects are observed when we track indicators of mothers' *broader economic security*. Nor is much change discernible over the 18-24 month period between the wave 1 and wave 2 periods of data collection. For example, Jobs First participants with recent work experience were more likely to report they "often cut the size of meals at home" because they could not afford more food. Jobs First mothers with no recent work experience had more trouble paying rent, 46% reporting difficulties in the prior year. And the Jobs First group as a whole reported $353 in total savings three years after entering the program, matched with over $4,000 in debt on average.

Figure 4.14 Number of months receiving cash aid since random assignment for Jobs First participants, Connecticut



Notes. Analysis based on 149 Jobs First mothers (n) with complete data.

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Table 4.1 Mothers who left TANF cash aid before 20 months and those who left between 20-25 months[68]

	Received cash aid: Less than 20 months	Between 20-25 months
Percentage with recent work experience	60	40*
Never married (%)	68	81
Family economy, four years after random assignment (16th quarter)		
Earnings ($)	2,743	2,654
Total income ($)	3,152	3,307
Employed (%)	63	73
On TANF cash aid (%)	18	21

* This is the only difference in group means that is statistically significant ($p < .04$).

These indications of economic insecurity can not be consistently attributed to the Jobs First intervention; even mean differences are of marginal statistical significance. The more fundamental point is that family support policies could be strengthened to help provide basic economic security.

Finally, our findings on women's *involvement in program components* may prompt fresh thinking on what the Jobs First "program" represents in the eyes of participants. After three years, about one in three women in the Jobs First group had participated in a job club – the major intervention aimed at moving women quickly into the labor force. About one in four women had attended a job training or classroom program of some kind. It remains unclear whether these program components drive positive outcomes. Alternatively, perhaps it's the tightening of eligibility and the nudge to find a job that is driving economic benefits, at least for women with little recent work experience.

SECTION 4B
Mothers' Social Contexts: Households, Marriage, Social Support, and Neighborhoods

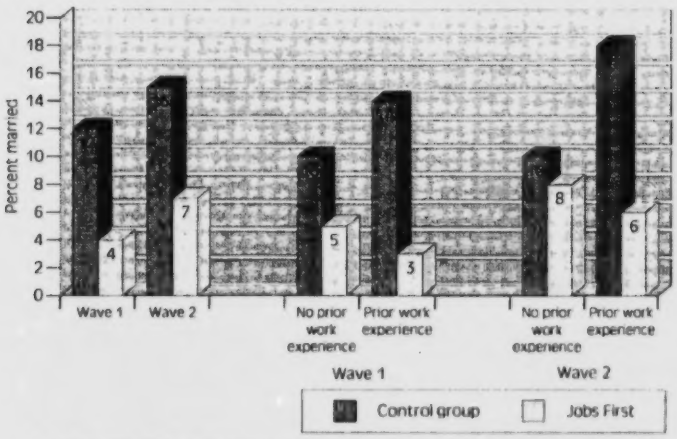
Marriage and birth rates. Following our wave 1 maternal interviews, we observed that the Jobs First group displayed a *lower* rate of being married than the control group. This pattern became more distinct at wave 2, particularly among those women with recent work experience.[69] Figure 4.15 details how marriage rates rose for this segment of the *control group*, from 14% at wave 1 to 18% at wave 2. The Jobs First groups remained lower: 6% for those with recent work experience and 8% for those with none. The E-C difference in marriage rates for women with prior work experience is statistically significant at wave 2 ($p < .05$).

The E-C difference was significant at wave 1 for the overall sample as well. The share of women who reported being married and living with their spouse equaled 4% for the Jobs First group and 12% for the control group. At wave 2, women in the overall Jobs First group were *less likely* to be married and living with their spouse three years after random assignment than the control group ($p < .10$).[70]

The birth rate among Jobs First participants with prior work experience—that is, women giving birth since random assignment—is higher (62%) compared to the corresponding segment of the control group (46%; marginally significant at $p < .10$). It's not clear why women moving into Jobs First would slow their marital rate and increase their birth rate, unless their improved economic situation provides a feeling of independence and this discourages marriage. Additional research is required to illuminate these dynamics. We should not assume that marriage and child bearing necessarily go together when maternal employment rates climb.

Households. About three in five women, across the full sample, lived only with their child or children at wave 2. No significant E-C difference was detected: for the overall Jobs First group, 62% reported being the only adult in the household, compared to 57% of the control group. Conversely, fewer women assigned to Jobs First lived with one other adult (27%), compared to the control group (35%), but this difference did not reach statistical significance.

Figure 4.15 Percent of mothers married and living with spouse, Wave 1 and Wave 2, Connecticut



Notes: The differences between the mothers in Jobs First and the control group are significant ($p<.03$) when looking across all mothers in wave 1 as well as when looking at mothers with prior work experience in both waves 1 and 2. In addition, differences are marginally significant ($p<.10$) when comparing Jobs First and control group mothers in wave 2. Analysis based on 253 mothers (n) with complete data.

A similar pattern arose when focusing on the number of children who reside in mothers' households—including her children *and* youngsters of co-resident adults. Overall, 43% of the mothers lived only with the single focal child, combining Jobs First participants and the control group . We observed a slight tendency for Jobs First group members to live in households with fewer children. No E-C difference was observed among women living in a household with two children. Yet 13% of control group members resided in a household with three children, compared to 7% of the Jobs First group ($p<.10$). The question of whether women who achieve some economic independence tend to reside in smaller households deserves more careful research.

Social support. We delved into this domain in considerable depth, asking about the mother's perceived support from kin members or friends in seven different domains.[71] We had difficulty, however, detecting any E-C differences, or even change in the level of social support between waves of data collection. Earlier we found that Jobs First mothers with no recent work experience—at wave 1—reported stronger levels of support in raising their children, *less frequently* "feeling alone as a parent" (20%, versus 35% of the control group felt alone, respectively, $p<.05$). But this difference disappeared by wave 2.

A related tendency was that women with prior work experience, whether in the Jobs First or control group, reported slightly higher social support in terms of raising their child (feeling less alone as a parent), compared to women with no prior work experience. The same pattern held for the frequency with which mothers reported seeing relatives at wave 2. While the differences are not substantial, these tendencies fit the earlier findings that women with somewhat stronger incomes tend to marry less frequently and tend to live with no other, or fewer, adults compared to the control group. Taken together, these patterns suggest incremental gains in economic independence, blended with stronger social support.

Housing quality and neighborhoods. We asked mothers a variety of questions about their housing conditions, including problems that create stress inside homes for adults and children. For example, 19% of all women reported that insects or rodents can be seen in their housing units. Just under 12% reported at wave 2 that at least one broken window pane is apparent in their home, and 10% reported poor heating or plumbing. These basic levels are noteworthy. No differences were observed between Jobs First participants and the control group.

Financial hardship leads to other forms of stress inside households. For example, 27% of the entire sample reported that their telephone had been disconnected at some point in the 12 months prior to the wave 2 interview; this rate was 8% lower for the Jobs First group ($p<.10$). The utilities had been disconnected in 13% of women's homes.

We asked mothers a variety of questions regarding the child-friendliness of their neighborhoods. These items pertained to a pair of domains: (1) the extent to which adults are familiar, provide role models ("adults that children can look up to"), and watch-out for kids who are outside; and (2) the safety and accessibility of public places for kids, such as parks, playgrounds, and how "well kept" these facilities and equipment appear to be.[72] No E-C differences were detected, indicating that Jobs First participants may not be finding their way into more desirable neighborhoods.

In addition, we asked about discrete problems that many mothers may experience in their neighborhoods: joblessness, visible drug dealing, other crime, run down buildings, heavy traffic and noise. Here too, we observed no E-C differences for the overall sample or when splitting the mothers by their recent work-experience levels. The Jobs First group did report a slightly lower incidence of "vacant lots within one-to-two blocks," and less "litter and garbage on sidewalks and streets," compared to

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the control group at wave 2. These mean differences were marginally significant ($p<.10$), and when combined into a composite index the E-C differences became statistically insignificant. In short, we detected no consistent differences between the Jobs First or the control group in the quality of their neighborhoods three years after random assignment. The 2000 census data, when available at the census tract level, will allow us to study additional measures of neighborhood quality.

Geographic mobility. Stable relationships with adults—and eventually with teachers and adults inside schools—can be under cut when families move frequently. On the other hand, if mothers' employment and income gains were of sufficient magnitude, they could move to better neighborhoods which might be more family friendly. Mothers did report a fair number of moves during the three years following random assignment: over three in four women reported at least one move to a new housing unit since random assignment, with an average of 2.3 moves. Yet again, we did not detect any shift toward higher quality neighborhoods at wave 2 or any E-C differences.

Summary

We find some indications that the economic gains experienced by Jobs First participants are affecting the character of their social lives at home. These effects, however, are spotty and at times not in the direction that policy makers intended:

- The rate at which women are married and residing with their husband was significantly *lower* for Jobs First participants, compared to the control group. This E-C difference is statistically significant for women with recent work experience.
- This same segment of the Jobs First group—those with recent work experience—also tends to have a higher birth rate, compared to the control group.
- Women with recent work experience tend to live in slightly smaller households in terms of the number of children in residence, and report higher levels of social support on selected indicators. But these differences are marginally significant at times.

A sizeable share of mothers reported poor housing conditions and problems in their neighborhoods which undoubtedly create stress and unhealthy environments for young children. For example, 19% of the women reported that insects or rodents can be seen in their housing units. Of the entire sample, 27% said that their telephone had been disconnected at some point in the 12 months. We found no E-C differences for any indicator of housing quality or neighborhood problems. Families were quite mobile: the average mother moved her child(ren) between 2-3 times within the three years following random assignment. And we could find no indications that Jobs First participants are moving to better-off neighborhoods.

SECTION 4C
Time with Children, Parenting Practices, Affection and Stress

We turn next to each woman's role—not simply as the bread winner—but as the mother of a young child. We explore in this section how women's time with their children and other adults may be changing as they move into jobs, and whether this holds consequences for the frequency and character of certain parenting practices. The growing share of mothers who did find jobs must now juggle these tandem roles, and their adaptations likely influence children's social settings. With this section, we begin to report on the extent to which changes in the home environment were observed.

As children age, parenting practices evolve independent of other changes in home environments. Since the focal children grew from under 2½ to about 4 years old, on average, several of the following analyses take into account the child's age. This serves to partial out any shared effects linked to maturation and isolates the influence of the particular factor of interest.

Child development researchers, over the past 40 years, have shown that the vitality of homes and specific parenting practices are the most influential determinants of early learning and socialization. Most recently, the study of early child care by the National Institute of Child Health and Human Development (NICHD) found that the quality of nonparental child care does contribute to youngsters' development, especially those from low-income homes. But for most children, home factors are far more influential.[73]

Given this important, often replicated, finding, we endeavored to measure various facets of home environments, ranging from discrete parenting practices to the wider social dynamics in the home that represent supportive or unsettling backdrops for children's daily lives. In the Connecticut maternal interviews we had less time to delve into these parenting areas with mothers, compared to the California and Florida interviews. The overall Connecticut evaluation, led by MDRC, covered alternative issues and largely focused on school-age children.

During our wave 2 home visit, conducted by Yale field staff, we directly assessed the mother's own language and cognitive proficiencies, a related predictor of child development. This allows us to take into account influential maternal attributes—especially the mothers' education and cognitive proficiency—before studying the possible influence of parenting practices and the child's experience in different kinds of child care settings.

Some readers may argue that these indicators are only peripherally related to the narrower aims of welfare reform. Were not the 1996 reforms focused on simply moving mothers off cash aid and into jobs? Yes, these tandem goals were basic in the minds of many policy makers. But, in addition, if one reads the congressional debate over these reforms, claims were also advanced that welfare-to-work would alter the role models that mothers provide, improve the lives of children, and reduce the inheritance of family poverty.[74] Some state governments have made a focus on child well-being an explicit goal of their welfare programs. For example, the California state legislature and governor crafted it's CalWORKs program in 1997, approved under the Work Opportunity and Responsibility to Kids Act.

Time with other adults and children. We asked mothers about the extent to which they spent time with other adults. Interestingly, no E-C differences were detected, nor did we find differences among women employed at wave 2 and those who remained unemployed. This suggests that jobless women are not necessarily as isolated as is sometimes assumed by analysts. In interviews with mothers in California and Florida, we asked more specifically about possible changes in the time they spend with their young child. These findings are detailed in Section 5.

Household routines. Predictable routines inside the home—linked to meal times, bedtimes, getting ready for child care or school—may signal stable social relations and ways of organizing time that benefit children. We asked mothers several questions at wave 2 about these kinds of routines.

Jobs First families tended to display more consistent meal-time routines. For example, when we asked about the regularity with which all family members eat dinner together, the Jobs First group most frequently said, "every day or nearly every day." In contrast, the control group most frequently reported, "three to five days a week." The mean difference was a notable 0.6 of a standard deviation (*sd*) and marginally significant ($p<.10$). Alone, this finding can not support any strong claim. But two related items, whether breakfasts and dinners are served at the same time each day, yielded identical results. These findings are encouraging, especially in light of the fact that maternal employment was higher for the Jobs First group. These women were able to uphold consistent parenting routines. Perhaps their work schedules necessitated more consistent scheduling routines at home.

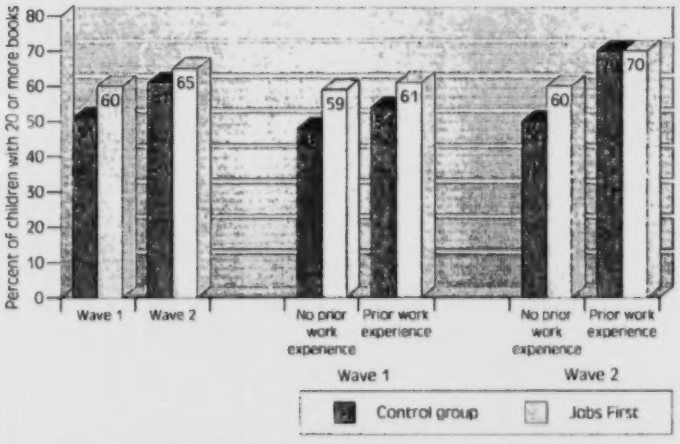
Parenting practices related to child development. We asked questions about the household environment, drawn from the HOME Inventory, to assess parenting activities that have been empirically linked to children's early language and cognitive growth.[75] For example, we asked mothers how many children's books were in the home and available to the focal child. Basic patterns are displayed in Figure 4.16.

The first pair of vertical bars (from left) indicates that a higher percentage of Jobs First participants (60%) reported that at least 20 children's books were available to the focal child at wave 1, compared to the control group (51%; $p<.10$). This may partially explain why at wave 1 we observed modestly higher language development scores for Jobs First children.[76] The wave 1 difference in children's books was driven by mothers with no recent work experience, where the gap is larger: 59% of the Jobs First group with no recent experience had at least 20 children's books, compared to 48% for the control group ($p<.06$). Note also that by wave 2, mothers with recent work experience were reporting slightly higher availability of children's books, compared to those with no recent experience.

We did not detect, however, any E-C difference in the reported frequency with which mothers read with their focal child. On average, women read with their child between "once or twice a week" and "most days" (the upper two responses on a four-point scale). But we observed no E-C differences for either work-experience subgroup.[77]

Television viewing. Children with mothers in the Jobs First group tended to watch more television than the control group, although mean differences failed to reach statistical

Figure 4.16 Percent of children with 20 or more books, Wave 1 and Wave 2, Connecticut



Notes. Differences between Jobs First and the control group are marginally significant ($p<.10$) in wave 1 and when comparing mothers with no prior work experience in wave 1. Analysis based on 239 mothers (n) with complete data.

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What's the difference? The magnitude of one-half a standard deviation

Researchers use fractions of standard deviations to describe how large or small differences are between two groups - reading frequency between employed versus jobless women, or learning gains between children in centers versus those in home-based child care.

But when we say the difference equals one-half or one-fourth a standard deviation unit, what does that mean?

Start with the fact that if we array scores—for example, how often mothers read with their children—two-thirds of the scores will fall within one standard deviation of the mean if normally distributed.

So, mothers that are half a standard deviation above the mean display this behavior at a significantly higher level, compared to the average mother. By using a fraction of a standard deviation (from the mean) we can compare average differences—so called, effect sizes—across differing measures that use differing metrics.

Let's take examples from recent research:

- The average difference between Latino and white parents in the frequency with which they read with their preschoolers equals about 0.6 of a standard deviation (*sd*).
- Five year-olds attending kindergarten improve their rudimentary reading skills by one-half *sd* after five months on average.
- Participation in Milwaukee's New Hope experiment, serving poor families, was associated with one-third *sd* gain in children's school performance as reported by teachers.
- A Canadian welfare-reform experiment, evaluated by MDRC, found that school-age children performed at the 30th percentile on a standardized test, compared to the 25th among those in the control-group, equaling one-sixth *sd*.

Sources: West, J., Hausken, E., and Collins, M. (1993). *Profile of Preschool Children's Child Care and Early Education Program Experience*. Washington DC: National Center for Educational Statistics (NCES 93-133). West, J., Denton, K., and Reaney, L. (2001). *The Kindergarten Year: Findings from the Early Childhood Longitudinal Study, 1998-99*. Washington DC: National Center for Educational Statistics (NCES 2001-023). Huston, A. et al. (2001). Work-based antipoverty programs for parents can enhance the school performance and social behavior of children. *Child Development*, 72, 318-336. Morris, P. et al. (2001). How welfare and work policies affect children: A synthesis of research. New York: Manpower Demonstration Research Corporation.

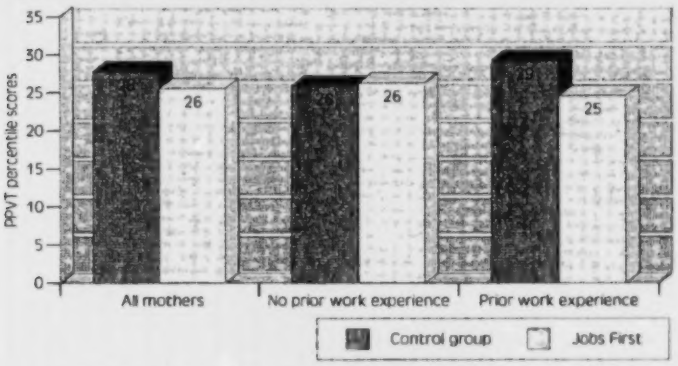
significance. On weekdays, Jobs First mothers reported that the focal child watched 3.8 hours daily, compared to 3.4 hours for the control group. We need to dig deeper to understand whether TV at child care settings helps to explain this tendency. Our wave 1 observations within home-based settings found a common reliance on the television by child care providers.[78] Jobs First mothers reported 6.1 hours of daily TV viewing on weekends, on average, compared to 5.4 hours for the control group (also failing to reach statistical significance).

Mothers' sensitivity and affection toward their children. We asked mothers a series of questions related to the stress, ineffectiveness, or, alternatively, the emotional rewards that they feel in raising a young child. For instance, we asked mothers to express agreement or disagreement (four-point scale) on statements such as, "I often have the feeling that I cannot handle things with [focal child] very well," and "Sometimes [child] does things which bother me a great deal." In general, mothers displayed low to moderate levels of detachment and stress related to their focal child. Mean scores, combined into a composite indicator of child-related stress and emotional rewards, equaled 3.2 for both the Jobs First and control group, with 4.0 being the maximum positive score.[79] About one in five mothers did appear to be detached from, and at least moderately stressed regarding her relations with, the focal child. These family cases deserve more analytic attention.

Just one overall E-C difference was discernible when we performed two additional tests on other measures related to the quality of mother-child relationships. One item gauges the extent to which the mother reports that "most times I feel that [child] likes me and wants to be near me." Mothers in the overall control group felt greater attachment on this particular item, compared to the Jobs First group ($p<.05$). But this pattern was not corroborated by two other indices.

Mothers' cognitive and language proficiencies. During our home visits at wave 2 we administered the adult version of the Peabody Picture Vocabulary Test (PPVT).[80] Economists often

Figure 4.17 PPVT percentile scores for mothers, Connecticut



Notes. Percentiles based on national samples. The differences between Jobs First and the control group are not significant. Analysis based on 167 mothers (n) with complete data.

utilize the PPVT benchmark, defining it as a measure of innate cognitive "ability," while other social scientists view it as a gauge of acquired linguistic and related cognitive skills. We administered the instrument in English or Spanish. National norms are available for each version, based on their administration to large and diverse samples of adults.

We display how mothers performed on the PPVT in Figure 4.17, expressed as percentile rankings. For instance, the first two bars (from left) show that women in the control group scored just below the 28th percentile, and those in the Jobs First group scored at the 26th percentile. That is, about three in four adults nationwide, drawn from large samples, score above the average mark observed for the Connecticut mothers.

No discernible E-C difference was observed in average PPVT scores among any of the subgroups. This is not surprising, since these cognitive proficiencies are likely acquired over a long stretch of time, during childhood and early adulthood. Yet we also observed wide variability in mothers' PPVT scores. We will utilize these scores as a possible predictor of children's early learning and school readiness, and to identify other influential determinants of child development after taking into the influence of these cognitive proficiencies.

Summary

We found it very difficult to discern any significant changes inside households—this, despite the clear economic gains that benefited many women. This important finding is consistent with the absence of effects—positive or negative—from participation in Jobs First as observed by the MDRC research team with a larger sample of clients.

We did detect modest signs that some women altered their home environments. For example, the Jobs First participants established more consistent meal-time routines for their children, compared to the control group. Jobs First participants also reported a slightly higher supply of children's books in the household. Both E-C differences were of marginal significance and modest magnitude. Nor could we discern any other advantages for Jobs First mothers inside their home environments on a variety of additional measures: television viewing, reading frequency with the focal child, engagement in other pro-development activities, or along several measures that delve into the social relations between mother and child.

SECTION 4D
Maternal and Child Health

During the wave 1 and wave 2 interviews we talked with mothers about several health topics—covering issues of physical and mental health, their child's health, and the family's access to health insurance and medical services.

Children's physical health. The average mother ranked the focal child's health as "very good," with many saying that their youngster was in excellent health. Over four in five mothers had taken the child to a doctor within the 12 months prior to the wave 2 interview. No E-C differences were detected for the overall sample or for the work-experience subgroups. Children whose mothers were participating in Jobs First were more likely to be covered by Medicaid, under the state's HUSKY program, compared to the control group (95% versus 76%, respectively; $p<.01$). And this gap was wider for Jobs First children whose mothers had recent work experience (95% of these focal children were enrolled in HUSKY), compared to control-group mothers with work experience (just 62% were enrolled).[81]

Mother's mental health and emotional depression. A mother's psychological well-being is a consistent and strong predictor of child development. We administered 20 individual items from a standard measure of emotional well-being: the Center for Epidemiological Studies Depression (CES-D) Scale.[82] Questions asked of the mother include, "you felt like you couldn't shake off the blues," "you felt lonely," and "you felt hopeful about the future." The items refer to the seven days prior to the interview, and mothers respond on a four-point scale, from "I felt that way most or all days" to "rarely or never." Scores of 16 or higher indicate a significant level of "depressive

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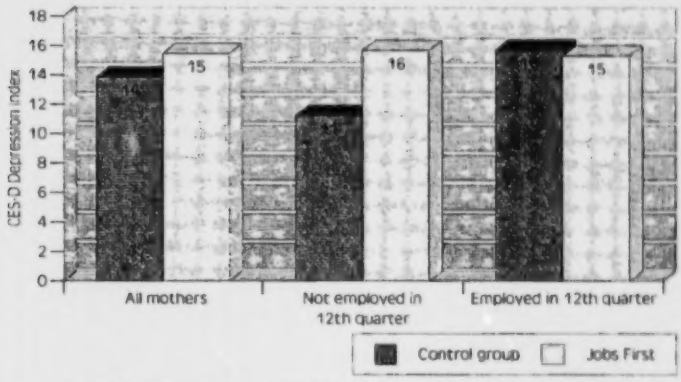
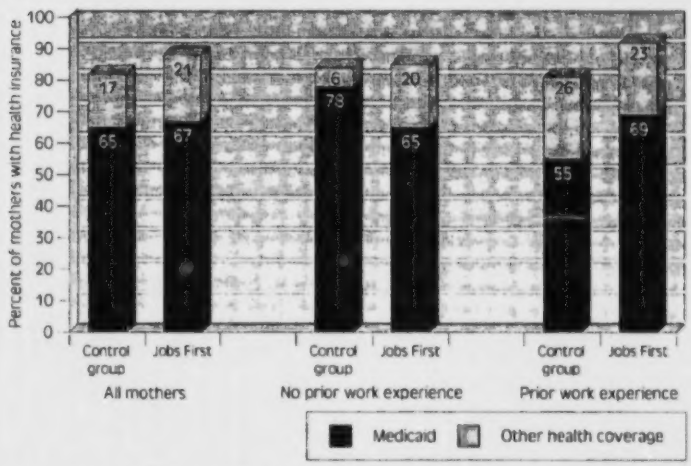
Figure 4.18 Mother's score on the CES-D emotional depression index, Connecticut



Notes: The differences between Jobs First and the control group are significant (at $p<.05$) for mothers who were not employed in the 12th quarter after random assignment. The rest of the differences are not significant. Analysis based on 187 mothers (n) with complete data.

Figure 4.19 Percent of mothers with health insurance, Connecticut



Notes: The difference between Jobs First and the control group in the percent covered by Medicaid is marginally significant (at $p<.10$) for those with prior work experience. The difference between Jobs First and the control group in the percent covered by other health insurance is significant (at $p<.05$) for those with no prior work experience. Analysis based on 258 mothers (n) with complete data.

symptoms"[82] and warrant some kind of counseling or intervention when the measure is used in clinical settings.

Figure 4.18 shows CES-D scores for Jobs First and control group members, split by their employment status at wave 2 (the 12th quarter). The most important finding is that many women suffer from at least moderate levels of depression. Incidence levels are higher for Jobs First mothers, scoring 15.5 points on the CES-D gauge, on average. This means that just under half of this group show depressive symptoms that warrant some kind of psychological assistance. The control group displayed slightly lower levels of depression (13.9 on average), but this E-C difference was not statistically different.

We did observe significant differences in mental health when splitting women by their employment status, also shown in Figure 4.18. Mothers who were *unemployed* in the 12th quarter, at the wave 2 interview, displayed *higher levels* of depression if they had been assigned to Jobs First three years earlier, compared to jobless women in the control group (15.7 versus 11.3 on the CES-D, respectively, $p<.05$). It is not clear why this pattern emerged. One possibility is that jobless women in Jobs First faced the 21-month deadline, which was hit by many, whereas the control group continued to draw AFDC cash aid while remaining unemployed. This may have resulted in higher stress levels for the former group.

Health insurance coverage. We asked mothers about two different kinds of health coverage: participation in the federal Medicaid program and participation in an employer health plan. Jobs First mothers with recent work experience did benefit from a higher rate of coverage, compared to the corresponding segment of the control group (Figure 4.19). Fully 92% of this segment of the Jobs First group reported health coverage for themselves, compared to 81% of this segment of control group. The share covered by Medicaid was statistically equal, between the overall Jobs First and the control group, averaging 66% at wave 2.

Finally, we asked employed mothers—at wave 1 and wave 2—whether their employers offered health benefits, independent of whether they chose to participate in these private plans. These interview questions helped to reveal variability in the quality of jobs obtained by different subgroups. Among women with recent work experience at wave 1, for example, 50% reported that their company offered health coverage, compared to 35% of those with no recent work experience (Figure 4.20).[83]

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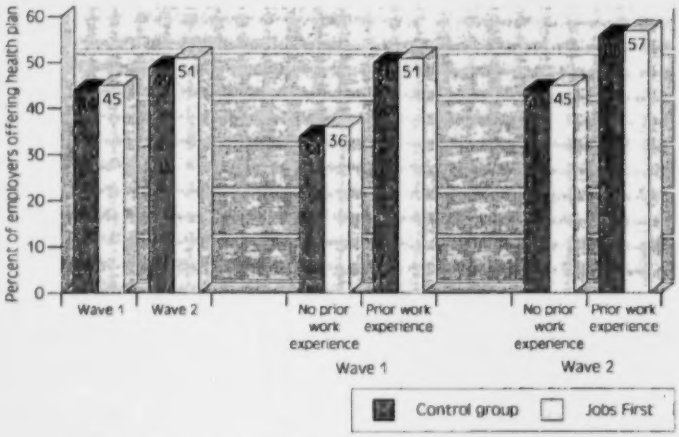
During the wave 2 interview, 18 months later, 57% of these women with recent work experience now reported that their employer offered health coverage. This increase suggests that women with stronger work experience may have moved up in the labor structure, including the possibility that longer tenure on the job brought health benefits (perhaps after passing a probationary period). Mothers with no recent work experience reported increases in the share of employers offering health insurance, as well.

Figure 4.20 Percent of employers offering health plan, Wave 1 and Wave 2, Connecticut



Notes. The differences between the Jobs First and the control group in each of these categories are not significant. Analysis is based on 170 employed mothers (n) with complete data.

Summary

The overall mental health of many mothers is weak at best. Just under half of all women, whether participating in Jobs First or not, display significant levels of emotional depression. If they visited a clinic with psychological services, they would warrant some kind of clinical intervention. And we detect no significant improvements in mental health between wave 1 and wave 2. We observed no program effects on mental health, with one important exception: Mothers who were unemployed at wave 2 displayed higher levels of depression if they were in the Jobs First group, compared to jobless women in the control group. This is a worrisome finding that deserves more analysis.

Most women and their children are covered under a health insurance plan. This bodes well for Connecticut's efforts to extend health coverage to low-income families. About one in five Jobs First participants was able to secure coverage through an employer by wave 2.

SECTION 4E
Child Care: Types, Character, and Cost

As many mothers move into jobs, their children's daily lives may change within two different settings. First, we reported above that very few changes can be detected in *home settings*. More telling shifts in everyday environments may be observed as more youngsters move into *child care settings*. This could translate into more time with a new adult in the child's home, or shifting settings entirely when a youngster enters a center or another home with a new caregiver. Indeed, it's unclear how welfare reform and family-support programs will reduce poverty over time in the absence of significant gains in the daily environments in which young children are raised. We begin our analysis by assessing which mothers selected a child care provider for at least 10 hours a week.

Use of child care. The decision by mothers to select a child care provider was related, in part, to their employment status at wave 2. But we detected no overall E-C difference between the Jobs First and the control group, displayed in Figure 4.21, in mothers' propensity to use a child care provider. Earlier we observed a 9% difference in the maternal employment rate between the Jobs First and the control group at wave 2 (64% versus 55% employed, respectively).[84] This difference tracks closely against the gap in the share of mothers who selected a child care provider: 74% of the Jobs First mothers and 69% of the control group members. About 10% to 14% more women selected a child care provider than were currently employed at wave 2. The use of child care providers also rose overall between waves 1 and 2 , from 57% to 71% of the entire family sample.[85]

Focal children were spending many hours with their child care providers, averaging 34 hours per week. Children whose mothers were in the Jobs First group spent 2 hours more per day in child care, but this difference failed to reach statistical significance. No E-C differences were observed for the two work-experience groups.[86]

Getting to work—child care stability. The importance of child care as a work support arose during our interviews at wave 2. Over two in five women in the control group (43%) said they had quit a job or training program due to child care problems since random assignment, compared to 34% of the Jobs First group (marginally significant at $p<.10$). By almost the same margin, the control group said they

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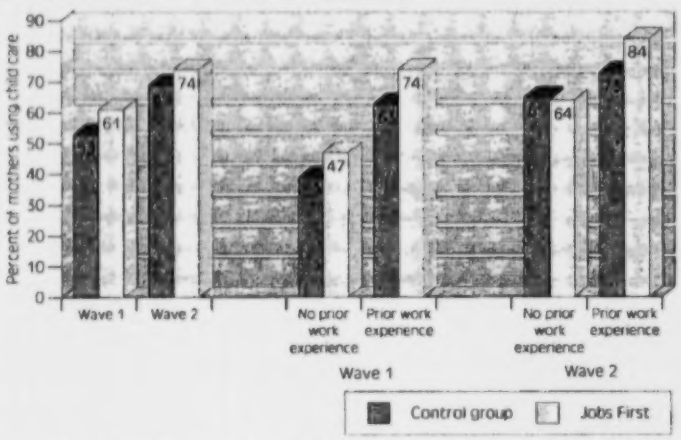
Figure 4.21 Percent of mothers using child care at least 10 hours per week, Wave 1 and Wave 2, Connecticut



Notes. The differences between Jobs First and the control group in each of these categories are not significant. Analysis is based on 241 mothers (n) with complete data.

decided to turn-down a job or training opportunity because they couldn't find a satisfactory child care provider.

Type of child care selected. Few mothers at wave 1—just 13% among those using child care—reported that they were using a child care center. The large majority relied on kith or kin members to provide care for the focal child. This was the lowest rate of center selection across the GUP project's three participating states.[87] By the wave 2 interviews, however, this picture had changed significantly. Figure 4.22 shows that 18 months later at wave 2 – now three years after random assignment – one-third (34%) of the entire sample had enrolled the focal child in a center-based program. Note that the figure shows wave 1 center-selection rates of 16% and 17%, given that these are for the samples matched with wave 2 data (control and Jobs First groups, respectively). The focal children were about 4 years-old at this point in time, at wave 2. It was expected that this rate of center selection would rise somewhat due to children's aging. But this gain of about 20% over an 18-month period is noteworthy.

Children whose mothers were participating in Jobs First were somewhat more likely to be in center-based care (36%), compared to the control group (30%), but this difference was not statistically significant. We report below how the Jobs First mothers fared better when it came to drawing child care subsidies at wave 2, compared to the control group. This progress may be linked to the rising use of center-based programs overall, whether due to program involvement or aging of the children.

Are mothers with certain attributes more likely to select center-based child care? Maternal education levels appear to be related to women's propensity to select a center-based program for their child. Among mothers using child care, 37% of those with a high school diploma selected centers, compared to 26% of mothers without a diploma (falling short of statistical significance, $p<.14$). Currently employed women also are more likely to be using a center-based program, again limiting the analysis to those using child care for at least 10 hours weekly. Among mothers employed at the wave 2 interview, 35% had chosen a center, compared to 22% of those mothers who were unemployed (again falling short of significance).

Utilization of child care subsidies. We studied mothers' propensity to draw public support for their care arrangements in two ways. First, the wave 2 interviews provided detailed information—at that particular point in time—on who was paying for child care and the extent to which women were taking-up subsidies for which they were eligible. Second, administrative data were shared by the Department of Social Services on which mothers drew child care support, how much aid, and for what length of time in the two to three years following random assignment.

Our point-in-time findings—drawn from the wave 2 maternal interviews—reveal a level of subsidy use very similar to the wave 1 take-up rate. One-fourth (25%) of the mothers using child care at wave 2 reported paying nothing for the caregiver and that the cost was covered by a public agency, including subsidized centers, Head Start programs, and agency awarded vouchers for child care. At wave 1 this share of women gaining access to child care subsidies equaled (26%).[88]

In addition to this 25% (of mothers using child care) who pay zero dollars out of pocket *and* report receiving a public subsidy, another share of women rely on kith or kin members who charge nothing for their child care services (33%). This leaves a remaining percentage of women (42%) who pay something out of pocket—be it a co-payment with partial subsidy or full payment with no public subsidy. We would like to know what share of this 42% provides a co-payment and what remaining share pays the full cost of child care without any subsidy. We analyze this question in two ways.

First, we identified those mothers who received a subsidy during the wave 2 period and were paying less than $100 monthly for a child care provider that served the child at least

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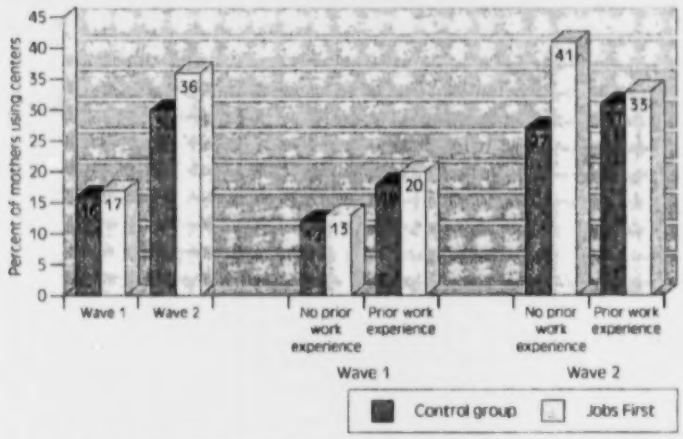
30 hours per week. In all likelihood these women were advancing co-pays at wave 2; they represented 23% of all mothers using child care. So, the point in time estimate of subsidy utilization equals the 25% who paid nothing out of pocket and were subsidized, plus up to 23% with partial subsidies and co-pays, totaling 48% of all mothers using child care at wave 2.

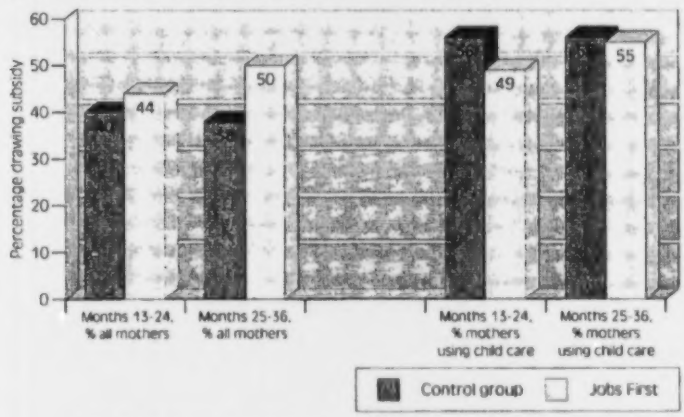
Second, we can examine administrative data on all women to determine more inclusively the share who drew a child care subsidy, roughly within two years prior to the wave 2 interview. That is, the administrative data provided by the Department of Social Services and compiled by MDRC stretch across the second (13-24 months) and third years (25-36 months) after random assignment.

Figure 4.22 Percentage of mothers using centers at least 10 hours per week, Wave 1 and Wave 2, Connecticut



Notes. The differences between Jobs First and the control group in each of these categories are not significant. Analysis is based on 173 mothers (n) using child care and with complete data.

Figure 4.23 Percent of mothers drawing any DSS child care voucher in 2nd or 3rd year after random assignment, Connecticut



Notes. These shares, estimated from administrative data (n=293), are for participation for at least one quarter during each of the two years. The first set of four bars includes all women in the sample as the denominator; the second set of four includes only women using child care at wave 2 (36 months after random assignment). Only the difference between Jobs First and the control group for the 25-36 month period after random assignment, which includes all women in the denominator, is statistically significant ($p<.05$).

These administrative data stem from four separate subsidy streams in which Jobs First and control group mothers may have participated in each of these two years. The programs are linked to different stages in which mothers are situated: *employment services* subsidies go to women who are receiving TANF cash aid; *work-related* subsidies go to those who are in approved "work activities," including a job; *transitional child care* is allocated to women who have moved off cash aid and are working; and *low-income* child care support goes to women who are not eligible for TANF but who have low incomes.

Figure 4.23 displays the share of mothers who drew support *from any of these four programs during at least one quarter* in each of the two years prior to the wave 2 interview. The first two pairs of bars use the more inclusive denominator—*all mothers* in the sample—in estimating the share who are participated in any of the four programs. This yields the only significant E-C difference: in the third year after random assignment (the 25-36 months period), 50% of the Jobs First mothers were taking-up a subsidy, compared to 38% of the control group ($p<.05$). When we move to the more restrictive denominator—*only mothers using child care* at wave 2—no E-C differences are observed (the third and fourth pair of bars).

Jobs First mothers had a considerably higher propensity to participate in the transitional child care program, particularly during months 25-36, after random assignment—the period immediately following the point at which many women hit their 21-month time limit. We observed that 43% of the Jobs First group drew this line of subsidy in at least one quarter, compared to 19% of the control group ($p<.001$). This tracks against the advantage in employment rates experienced by the Jobs First group. Conversely, the control group was more likely to draw the low-income support subsidy,

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compared to the Jobs First group, presumably since the latter relied more on the transitional stream of child care dollars.

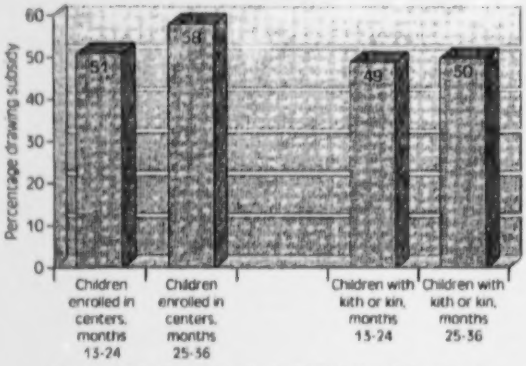
In California and Florida we have observed that mothers who select center-based programs are far more likely to draw subsidy support, compared to women relying on kith or kin members, despite the federal push since 1990 to expand child care vouchers for all kinds of caregivers. This pattern, however, is not evident in these new Connecticut data. Figure 4.24 displays the share of women selecting *centers* who drew subsidies from any of the four state programs, equaling 51% and 58% in the second or third year after random assignment, respectively. But the share of women drawing subsidies and relying on *kith or kin members* for care was statistically equal to center users in both years.

Duration of child care support. These administrative records show a take-up rate that ranges above the 25% rate reported by mothers at one point in time: at the wave 2 interview. But these data also reveal short periods of receiving public support for child care. When the subsidy reports are broken down by month, we observe that the average mother received support from the *work-related* subsidy stream for just 3 months across the full 24-month period. If we exclude mothers who never participated in this program, the mean number of months is 7 out of a possible 24 months. For *transitional* child care support, the average duration of support equaled just 2 months. Excluding women who never participated in this particular program, the average duration moves to 5 out of 24 months. So, while we see that about half of all women using child care eventually come into contact with the subsidy system, the duration of their support is limited.

Information about child care options. Mothers said that they received limited information about child care options and subsidies in general. The median woman responded "disagree some" in responding to the statement, "Staff gave useful child care information" (four-point scale, ranging from "strongly agree" to "strongly disagree"). Jobs First participants were no more impressed with the amount of information they reportedly received than control group members. The same responses were voiced by mothers, on average, when we read the statement, "Staff gave useful child care payment information."

Most mothers reported that they did inquire about child care support, although again we observed no E-C differences at wave 2. Two-thirds (67%) of the entire sample said they had "tried to get the government to pay for child care" at least once since random assignment. And 59% indicated that they had called the 800 phone number to reach the DSS contractor who administers the child care subsidy program. A somewhat smaller percentage, 49%, indicated they had talked with their caseworker about child care aid since random assignment.

Figure 4.24 Percent of mothers drawing subsidy by type of provider selected in 2nd and 3rd year after random assignment, Connecticut



Notes. These shares are estimated from administrative data, including only mothers using child care at wave 2 interview and with complete date (n=173). Estimated percentages include participation in any of the four subsidy programs. Gain in the share of mothers using centers who participate in any of the four child care programs is not statistically significant.

Summary

Child care settings are changing remarkably for many youngsters, in sharp contrast to largely static home settings. Over seven in ten children were in child care at least 10 hours per week at wave 2, up from just over half at wave 1. And these toddlers and preschoolers were spending 34 hours each week in these new settings, increasingly attending center-based programs. Two in four mothers reported quitting a job due to child care problems since random assignment.

Access to child care subsidies was aided by Jobs First participation but the duration of this assistance remains short and episodic for many women. Connecticut is extending child care aid to mothers selecting home-based arrangements, including those relying on kith or kin members. Yet the flow of information about child care options remains quite constrained, and Jobs First participation did not boost the amount of information that mothers perceived receiving.

SECTION 4F
Children's Development and School Readiness

We conducted three kinds of assessments with each focal child during our wave 2 home visits. First, we guided the child through a battery of scales—contained within the Bracken Basic Concept Scale (revised)—that gauges children's knowledge of letters, words, and written language, verbal skills, and cognitive proficiencies related to direction and position of

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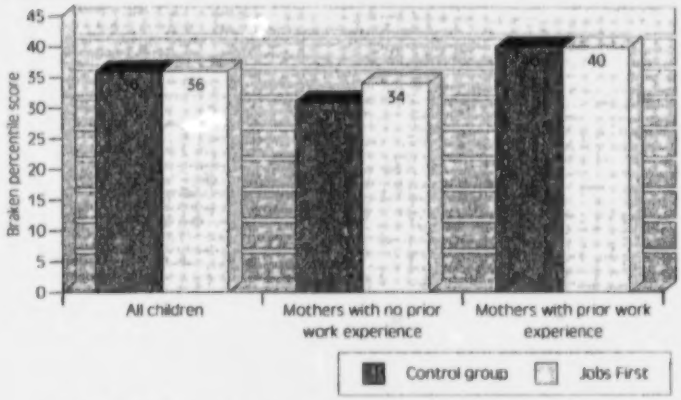
objects, sizes and numbers, shapes, quantities and time. The Bracken has been administered to large numbers of diverse children and scores can be reported in terms of national percentile rankings. The Bracken was given in Spanish when the mother requested this option. Appendix 1 details the 11 subscales used in the Bracken assessment, administered directly with the focal child in the home.

Second, we asked mothers a variety of questions related to their child's school readiness skills. One set of readiness items relates to the child's ability to write letters and his or her own name, draw pictures rather then scribble, and proficiency in counting. The additional set is a direct assessment with the child's understanding of how children's books are constructed (location of the title page, where the story begins, for example), comprehension of the field staffer's oral reading of the story, and the child's ability to reason about ideas presented in the story. These instruments were drawn, respectively, from the National Household Education Survey (NHES) and the national evaluation of Head Start (FACES).[89]

Third, the Child Behavior Checklist (CBCL) was administered to assess the incidence of behavioral problems exhibited by the child. This relies on mothers' reports of the severity of 50 possible behaviors or emotions that youngsters may exhibit indicating delayed social development.[90] In addition, mothers reported on the strength of an array of positive behaviors displayed by the child.[91]

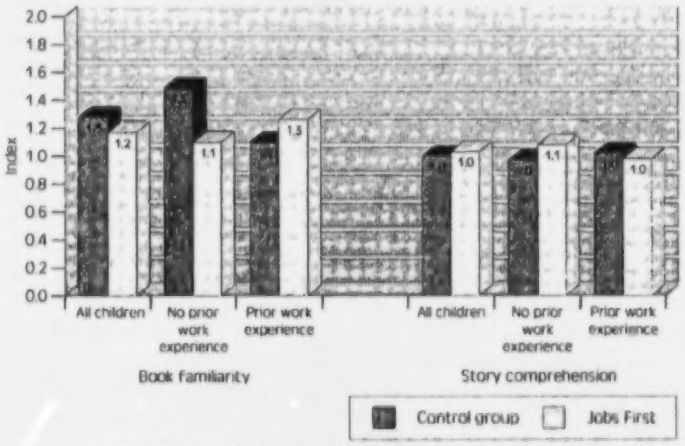
Cognitive and language proficiencies. We begin this line of analysis by displaying mean Bracken scores for the 174 Connecticut children who were able to complete the assessment without significant discomfort. Children with mothers participating in Jobs First scored just above the 36th percentile, statistically equal to children in the control group. (Figure 4.25). Youngsters whose mothers reported recent work experience performed significantly stronger on the Bracken, scoring at the 40th percentile, compared to the 32nd percentile among youngsters with mothers reporting no recent work experience. This difference is likely due to differences in maternal attributes. For example, mothers with higher school attainment or PPVT scores are more likely to be employed *and* their children likely show stronger developmental trajectories. We return to this issue shortly.

Figure 4.25 Children's Bracken percentile scores, Connecticut



Notes. The differences between Jobs First and the control group are not significant. Analysis based on 174 children (n) with complete data.

Figure 4.26 Child's score on book familiarity and story comprehension indices, Connecticut



Notes. The differences between Jobs First and the control group are not significant. Analysis based on 182 mothers (n) with complete data.

School readiness measures. Next we assessed possible E-C differences in children's familiarity with storybooks. Two of the three subscales are illustrated in Figure 4.26: the child's basic familiarity with the structure of a children's book and his or her comprehension of an oral reading of this short story, *Where's My Teddy?* Neither of these subscales revealed E-C differences, nor could we find any differences between subgroups defined by their mothers' prior work experience level. Appendix 2 reports these scores in relation to a national sample of children attending Head Start preschools.

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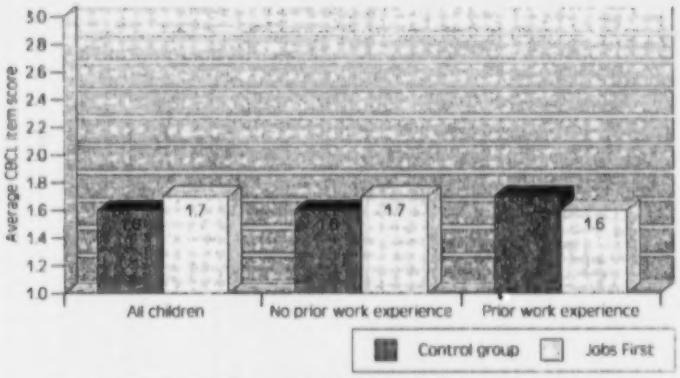
Figure 4.27 Child's score on CBCL social problems index, Connecticut



Notes. The differences between Jobs First and the control group are not significant. Analysis based on 182 children (n) with complete data.

Behavior problems and social development. Figure 4.27 displays mean items scores on the 50 items that ask mothers about possible behavior problems displayed by the focal child. A higher score on this three-point scale indicates more frequent display of a particular behavior problem. In terms of absolute levels, the average child is scoring between a problem behavior that occurs "only occasionally" and "somewhat frequently." No E-C differences were observed for the overall sample, nor by work-experience groups. Appendix 2 compares these scores against a national sample of children.

Summary

The focal children scored below the 40th percentile, on average, for our most comprehensive assessment of their cognitive proficiencies. Significant variation around this low mean is observed, with children scoring higher when their mothers displayed stronger work experience. This association, however, is explained by other maternal factors, not employment per se within multivariate analyses (not reported here).

No effects on children's development could be linked to the mothers' participation in the Jobs First program, whether looking at measures of cognitive growth, school readiness skills, or social-developmental outcomes. While disappointing, this may not be surprising in that Jobs First participation showed such slight effects on children's home environments. And we have been unable to detect any significant relationships between youngsters' evolving child care experiences and their early learning in Connecticut.

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SECTION 5

MOTHERS AND CHILDREN IN CALIFORNIA AND FLORIDA

How did their lives change?

Overview: Detailing the Well-being of Families

Next we turn to the California and Florida families—exploring the extent to which their economic well-being and social dynamics changed two years after mothers entered work-first programs. We focus on the extent to which economic gains for many—or the persisting conditions of poverty—were felt inside homes and within children's evolving settings, including time spent with new adults in child care.

We administered similiar yet longer interviews with mothers in California and Florida at wave 2 in year 2000, along with home visits, compared to data collected in Connecticut. This offered the opportunity to employ additional measures of the quality of home life, social relations, and mothers' time with their children. Similar to the Connecticut analysis, we compared those California and Florida mothers with recent work experience against those with no recent work experience.[92]

The major limitation of the California and Florida data is that no control group was available in either state, necessary in isolating the discrete effects of welfare reform.

The present section is organized around the same six topics that framed the Connecticut findings:

- Section 5A. Mothers' *employment, earnings, economic supports* from household members, as well as the mother's degree of *involvement with the welfare office and income-support programs.*
- Section 5B. *Mothers' social environments*, including household composition, marriage and birth rates, types and levels of social support from kith and kin, and qualities of the immediate neighborhood.
- Section 5C. Nature of *mother-child interactions*, including the mother's time with the focal child, parenting practices, approaches to discipline, and sources of emotional stress and conflict.
- Section 5D. Maternal and child *health*, and mothers' emotional well-being and depression.
- Section 5E. *Child care arrangements*, including type of care selected by mothers, migration among types of care between wave 1 and wave 2, subsidy flows and out-of-pocket spending, and mothers' views of child care providers.
- Section 5F. *Children's early learning and social development*, including cognitive and language proficiencies, school readiness skills, and social problems.

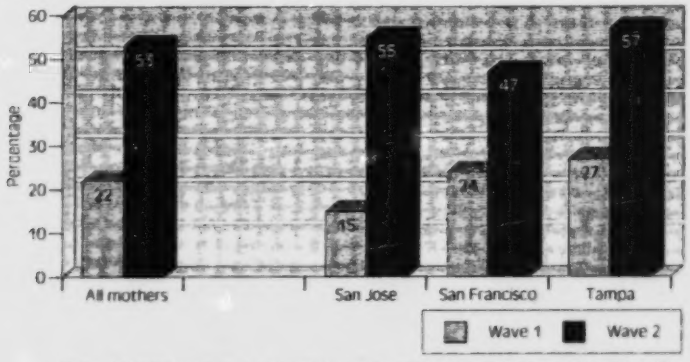
We include graphs for those economic, social, or child development indicators that displayed statistically significant differences between wave 1 and wave 2, or between the two groups based on recent work experience.[93] Two exceptions to this rule are important. We break down some results by key features of the mother, such as her current employment status or school attainment level. In a few instances, we include figures or tables for basic indicators that are important to report, even though between-group differences or change over time are not statistically significant. Note also that a complete listing of measures used in the maternal interviews and home visits appears in Appendix 1.

SECTION 5A
Mothers' Employment, Wages, Income Supports, and Welfare Engagement

Employment. Many women, unemployed at wave 1, had found a job and were working two years later. Figure 5.1 shows the rising share of mothers who were currently working when interviewed at wave 1 and wave 2. At wave 1, 22% of the California and Florida mothers were currently employed, climbing to 53% of these same mothers at wave 2.[94]

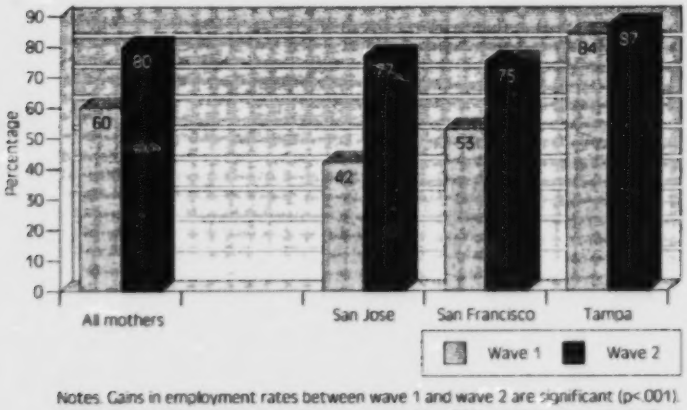
It's important to remember that these gains can not be solely attributed to welfare reform and new work-first policies. Historically, many women have entered the welfare system for short periods, then exited after finding a job. So, we would expect that employment rates would climb somewhat over this two-year period. Recent evaluations of work-first programs, across several states, have shown that at least half the women in control groups that live under the old AFDC rules re-enter the labor force within two years.[95] Our sample of mothers likely benefited from the final two years of the nation's robust decade of economic growth. Still, these employment gains are notable and in line with the employment gains experienced by the Connecticut Jobs First group.

Figure 5.1 Share of mothers currently working at Wave 1 and Wave 2, California and Florida



Notes. Gains in employment rates between wave 1 and wave 2 are significant ($p<.03$). Between-site employment rates are significant at wave 1 ($p<.04$) but not at wave 2. Analysis includes full sample (n) of 452 mothers.

Figure 5.2 Share of mothers who worked in prior 12 months, Wave 1 and Wave 2, California and Florida



Notes. Gains in employment rates between wave 1 and wave 2 are significant ($p<.001$). Between-site differences are significant at wave 1 ($p<.001$), and less strong but still significant at wave 2 ($p<.02$, n=452).

Figure 5.1 also shows that sampled mothers in San Jose and San Francisco nearly caught-up with their Tampa counterparts in terms of employment rates between waves 1 and 2. This suggests that the higher employment rate for Tampa mothers at wave 1 was associated with Florida's relatively early implementation of TANF reforms. Once the two California counties pushed forward on implementation, more women moved into jobs.

A larger share of mothers were employed for at least short periods during the 12 months preceding each interview. In the year prior to the wave 1 interview, for instance, just under 60% of the mothers had worked for pay at some point. This percentage rose to 80% in the 12 months preceding the wave 2 interview (Figure 5.2). In general, we see that over three-quarters of all mothers had some labor force involvement in the 12 months prior to the wave 2 interview, even though 53% were *currently employed* at the point of the wave 2 interview.

Additional findings, not displayed in the figures, are noteworthy. First, these employment gains were shared by the one-third of the California and Florida sample who reported no work experience in the 12 months prior to entering new state welfare programs. These women tend to be longer-term welfare clients; yet they were able to move from welfare to work. This suggests that work-first policies did have a discrete effect on women with little work experience.

Second, the mean number of hours worked rose from 23 to 35 hours per week between waves 1 and 2.[36] Third, one in six mothers reported they were employed in the child care sector, working in a center or as an individual provider. One in every three women reported that they had been late to work, or missed a day, due to child care problems in the past month.

Many mothers worked irregular hours. Figure 5.3 illustrates the share of women who reported working a night shift or on weekends at wave 2. Just over 29% of the mothers employed at wave 2 said they were working nights, and 41% were working weekends. These categories are not mutually exclusive: some women worked nights and weekends. This general pattern holds important implications for child care options, since most center-based programs are neither open at night nor on weekends.

We asked employed mothers at wave 2 several questions about how they view features of their workplaces. Figure 5.4 summarizes a portion of this information. For each statement pertaining to workplace attributes, the mother responded "very true," "somewhat true," or "not true." The women felt most positive about their coworkers, finding them to be friendly. Only about half believed that "chances for promotion" were good. This is cause for concern, given that many of these jobs paid very low wages.

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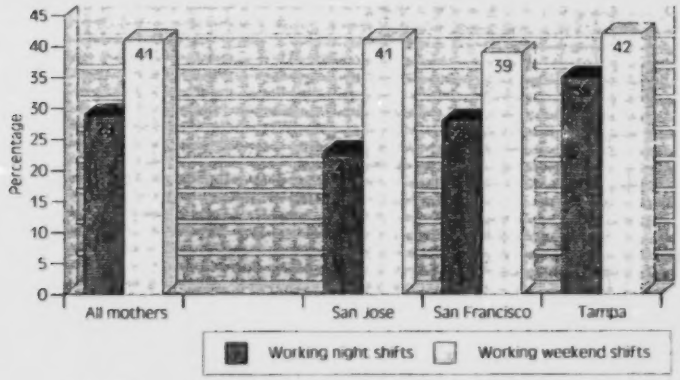
Figure 5.3 Mothers working irregular work hours, Wave 2, California and Florida



Notes. Differences between groups are not statistically significant. Analysis includes 357 mothers (n) who reported shift data.

Wages and earned income. Corresponding to their employment gains, mothers' wages rose for many between waves 1 and 2, that is, 1998 through 2000. Figure 5.5 shows *monthly* wages for all mothers (first pair of vertical bars) and then excluding mothers who had no earned income in the year prior to the wave 2 interview (second pair of bars). For all mothers, we see that mean wages rose from $520 to $904 per month. These earnings pertain to the mother's current or most recent job, as reported at wave 1 and wave 2.

When we exclude women who were jobless at wave 2 (reporting zero earnings), wage gains are even more striking: climbing from $588 to $1,156 monthly. The catch-up in employment rates observed for San Jose and San Francisco mothers, relative to Tampa, is mirrored in their wage gains. For all San Jose mothers, mean wages rose from $288 to $956. The improvement for San Francisco mothers was from $436 monthly at wave 1 to $860 at wave 2.

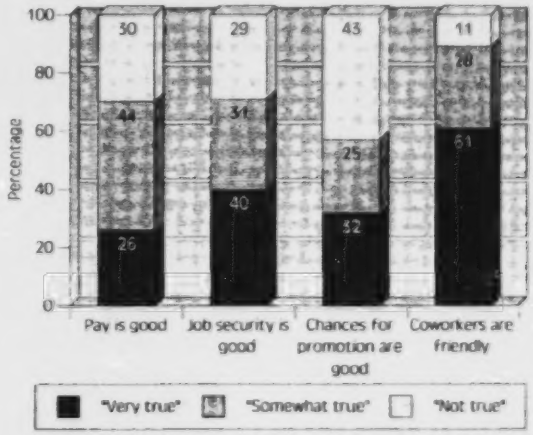
The length of women's work weeks—35 hours at wave 2 on average—did not differ significantly among county sites. Hourly wages reported by mothers were significantly lower in Tampa, taking account whether women were working full or part-time, equaling $7.82 hourly. The average mother in San Jose earned $9.37 hourly, and in San Francisco, $9.05 hourly at wave 2.

Total income—public and private streams of support. The post-1996 welfare reforms aimed to reduce families' dependence on public assistance. But this can be accomplished without gains in mothers' net income. As women move into jobs, their cash aid from the welfare system typically begins to decline, or they are encouraged to move off aid entirely in order to conserve future months of eligibility. Recent evaluations of state welfare programs reveal that many lose as much in public aid as they gain in earned income. This result appeared in MDRC's evaluation of the Jobs First program. While such policies can reduce reliance on welfare—in Connecticut a 9% lower rate of TANF enrollment for the Jobs First group, compared to the control group—they do not necessarily advance long-term self-reliance or appreciable declines in family poverty.[97]

Figure 5.6 displays changes in total income—taking into account wage earnings and loss in income-supports from welfare and allied programs—between waves 1 and 2. Gains in total income for the entire California and Florida sample were statistically significant ($p<.001$), rising from $773 to $1,048 monthly. We also observe significant gains for mothers in each county, with those in San Jose earning more than Tampa mothers, on average ($1,129 and $990, respectively, without a cost-of-living adjustment). These gains are encouraging, since they indicate that wage gains were able to exceed any loss in TANF cash aid and other income supports.

We also examined different streams of economic support that possibly benefited mothers and children. For example, we asked mothers about other adults in the household who were

Figure 5.4 How employed mothers view their workplaces, Wave 2, California and Florida



Notes. Analysis based on 357 mothers (n) currently employed at wave 2.

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employed or drawing income supports, and whether such income helped to support the focal child. Figure 5.7, for example, displays the share of mothers who reported that such a wage-earning adult was co-resident. This person(s) could be a kin member, friend or housemate, or male partner. A small gain in the share of women who were co-resident with a wage earner was observed between waves 1 and 2, rising from 37% to 43% (significant at $p<.03$). This gain was largest for San Jose mothers, moving upward from 49% at wave 1 to 61% at wave 2

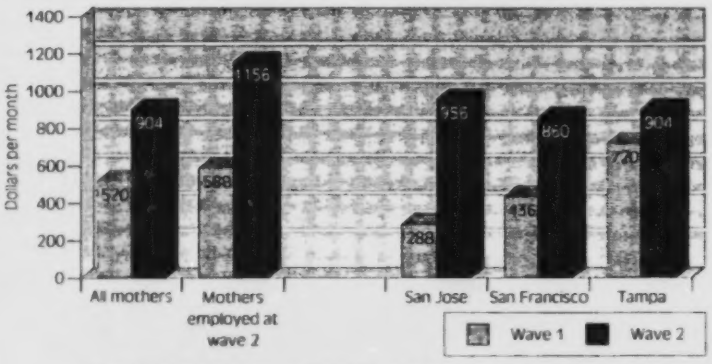
These modest gains may stem from strong economic conditions. Or perhaps a share of participating women moved into households populated by employed adults. Over half of the women who resided with employed adults said that this individual's income does help support the focal child.

Cash aid from TANF and allied income-support programs—food stamps, child support, and the EITC for working parents —represent common sources of income. While welfare reforms have discouraged participation in cash aid nationwide, eligibility for other work supports has been liberalized since 1996, including access to child care support and enrollment in Medicaid once off cash aid. Participation rates in these collateral work supports have fallen in some states, however, raising questions about whether women have come to assume that they lose eligibility once leaving TANF cash aid.

Many states allow TANF clients to remain on cash aid, with declining levels of support, as mothers transition into the labor force—including California and Florida. Figure 5.8 illustrates how many women continued to draw TANF cash aid as they successfully moved into low-wage jobs.

About half reported they had received TANF cash aid between 9 and 12 months during the year prior to the wave 2 interview. This was down from 60% of the same mothers in the year preceding the wave 1 interview. This level of reliance on cash aid was much lower among Tampa mothers: just 26% had received TANF aid between nine and 12 months in the year prior to the wave 2 interview. This level was actually up from 22% in the year prior to wave 1. While the

Figure 5.5 Mothers' monthly wages, Wave 1 and Wave 2, California and Florida



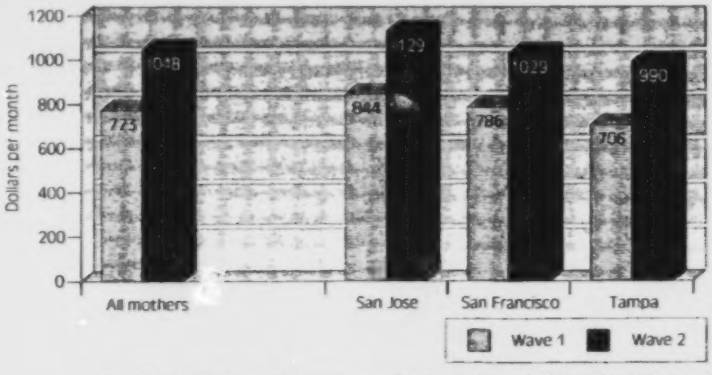
Notes. Reported wages are for current or most recent job, prior to wave 1 and wave 2 interviews. Gains in earnings between wave 1 and wave 2 are significant ($p<.001$) for all mothers (n=452) and for employed mothers at wave 2 ($p<.001$, n=353).

typical pattern in Tampa was for women to leave cash aid as they found jobs, mothers in California tended to find jobs *and* remain on cash assistance. This likely reflects relatively generous income-disregard policies in the two California counties.

As mothers moved into jobs many disengaged from the food stamp program. The share of women receiving food stamps declined from 92% to 84% between waves 1 and 2. The decline was slightly larger among San Jose mothers, falling from 91% to 78%. We have no direct data on whether these women moving off food stamps were, in fact, still eligible.

The earned income tax credit (EITC) provides another source of income for low-wage workers, including many who have left

Figure 5.6 Total income from all sources, Wave 1 and Wave 2, California and Florida



Notes. Gains in total income between wave 1 and wave 2 are significant ($p<.001$), based on 405 mothers (n) reporting income at both waves. Between-site differences are significant at wave 1 ($p<.02$) and marginally significant at wave 2 ($p<.08$).

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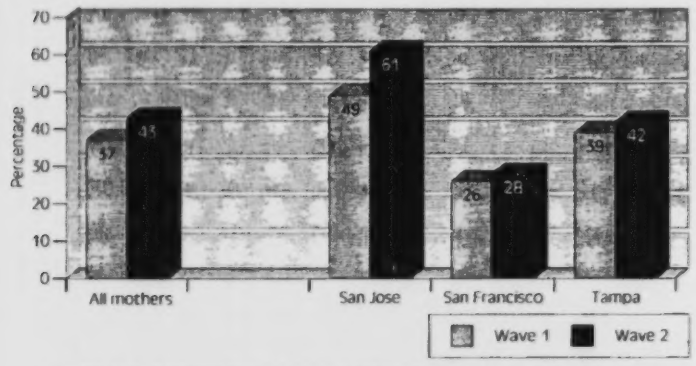
Figure 5.7 Mothers in households with a wage-earning adult, Wave 1 and Wave 2, California and Florida



Notes. Overall increase between wave 1 and wave 2 is significant ($p<.05$). Between-group differences are significant at waves 1 and 2 ($p<.001$). Analysis is based on 448 mothers (n) with complete data.

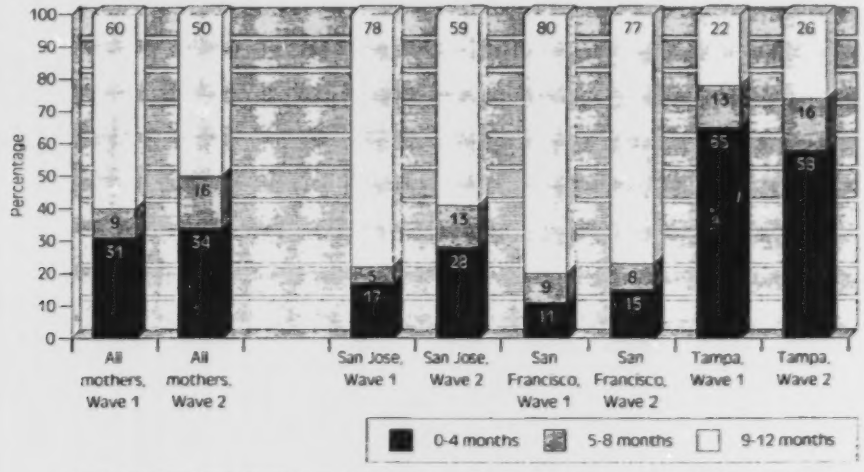
cash assistance. This refundable credit provided over $30 billion to 18.4 million low-income families nationwide in 2001.[98] The Clinton Administration pushed through substantial increases in the EITC as an incentive that helps to "make work pay" — encouraging employment and discouraging a back-slide onto welfare. A rising share of women did file for the EITC as their engagement with the labor force increased between waves 1 and 2, moving up from 28% to 36%. The propensity of Tampa mothers to file for the EITC is especially notable, climbing from 41% to 51% between waves 1 and 2.

Considerable policy attention has been dedicated to boosting child support payments from fathers. A modest fraction of mothers drew significant child support from fathers. Twenty-eight percent (28%) of the mothers reported receiving child support of any amount at wave 2. Average (mean) payments equaled $193 monthly.

Longer-term economic security. Research over the past decade suggests that the family's medium to long-term economic health is more influential in shaping children's early development than sporadic episodes of low-wage employment. Our cross-sectional earlier analysis of the wave 1 data was consistent with this claim: the incidence of child behavior problems at age 2½ , on average, can be estimated by longer-term indicators of the mother's economic well-being.[99] One such predictor relates to the family's level of food insecurity, including measures of hunger and food rationing. The U.S. Department of Agriculture has developed a nationally normed set of questions to assess food security, which we used at wave 1 and 2.[100]

Overall, levels of food insecurity did not change appreciably between wave 1 and wave 2 when we analyzed the complete USDA protocol. For example, we see in Table 5.9 that the percentage of mothers reporting that they ran out of money and their child skipped meals during the prior year, remained constant at just over one in eight between waves 1 and 2. Yet note that this rate is 10 times the level of food insecurity observed in the general population. Similarly, the share of mothers reporting that they bought cheap food to feed their children because that's all they could afford remained the same between waves 1 and 2, just under twice the rate reported by a nationally representative sample of parents.

Figure 5.8 Months on TANF cash aid during prior year, Wave 1 and Wave 2, California and Florida



Notes. For all mothers the mean number of months on TANF aid fell from 8.2 to 7.2 months, a statistically significant reduction ($p<.001$). Between-group differences also are significant, at both wave 1 and wave 2 ($p<.001$). Analysis is based on all 452 mothers (n).

To learn about women's own views of their

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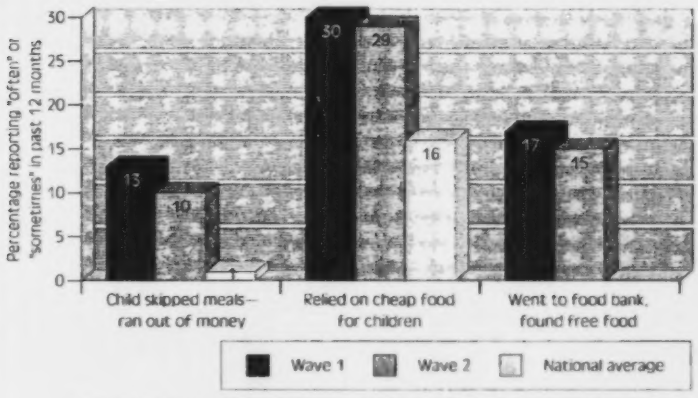
Figure 5.9 Indicators of hunger and food insecurity, Wave 1 and Wave 2, California and Florida



Notes. No changes between waves 1 and 2 are statistically significant. Detailed comparison of hunger and food rationing items to national norms appears in Appendix 2. Special thanks to Gary Bickel at the USDA for sharing the 2002 national normative levels. Analysis based on 390 mothers (n) with complete data.

economic security, we asked whether they felt better-off financially than a year ago, the year prior to the wave 2 interview. Figure 5.10 reports on these levels of economic confidence for the entire sample, then for women who were employed or jobless. It's encouraging that over half of all mothers said "agree" or "strongly agree" with the statement of being better off. But these levels differ depending on the mother's employment status ($p<.001$). Among those currently working at wave 2, just under 80% felt they were better off, versus only 30% of those who were unemployed. Being employed appears to bring a sense of optimism, at least in the short run.

Engaging the welfare-to-work program. Next, we examine the extent to which mothers engaged key elements of work-first programs. The welfare-to-work model manifests two "theories of action" or pathways that clients are to follow. The first argues that women will be encouraged to find and hold-down a job by restricting access to cash aid—through stricter eligibility standards, requiring work or job search activities, and diverting clients quickly into jobs. If economic incentives can be expanded to make work pay, then a combination of carrots and tighter rules will nudge clients to leave the rolls.

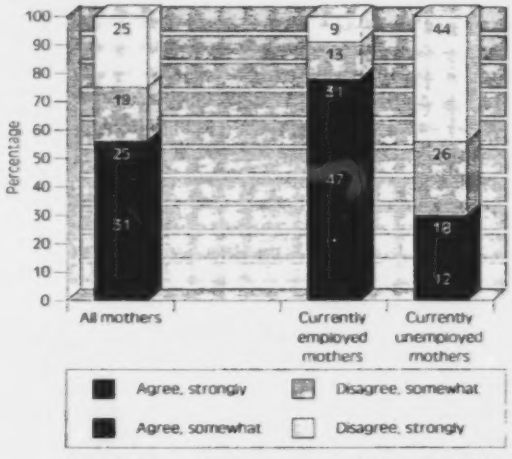
The local delivery of job preparation services, child care, transportation, and other work supports represents the second way in which welfare reform is supposed to work. That is, rather than simply restricting access to the TANF program, there should be a substantive program in place—delivered by caseworkers, trainers and teachers, and child care counselors—that assist clients in acquiring job-related skills and finding long-term employment.

To what extent does the provision of services and human-scale support increase women's rates of employment and economic self-sufficiency? One recent evaluation—tracking the caseload decline in California—found that the fall-off was more strongly linked to the decreasing number of people entering the welfare system, not due to an increasing rate of exit by current clients.[101] This suggests that welfare reform works not only as a program intervention that provides value-added to participants, but also as an institution that is now viewed as more restrictive.

We asked mothers a variety of questions about their participation in key elements of work-first programs. We also were curious about the signals that women were reading from their caseworkers. Figure 5.11 reports on the extent to which sampled mothers participated in any classroom training program and job clubs (providing job preparation services) in the year prior to the wave 2 interview.

Overall, just under half of all mothers were enrolled in some kind of training program. San Francisco stands out in terms of a much larger share, 63%, who participated in some kind of classroom or vocational training in the prior year. The most common forms of training were vocational

Figure 5.10 Mothers' views of their financial situation, Wave 2, California and Florida—"It's better than a year ago..."



Notes. Differences between groups are significant ($p<.001$). Analysis based on 450 mothers (n) with complete data.

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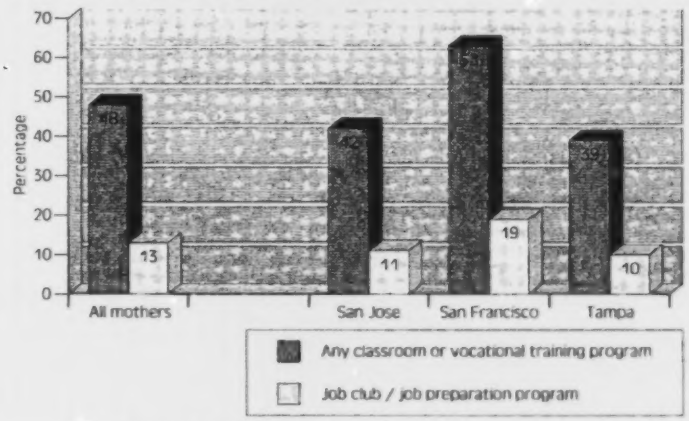
Figure 5.11 Mothers engaged in education or job preparation programs, Wave 2, California and Florida



Notes. Analysis is for 450 mothers (n) with complete data on programs in which they participated during the 12 months preceding the wave 2 interview. Program categories are not mutually exclusive. Between-site differences in participation rates for classroom or vocational programs are significant ($p < .001$) but not for job club participation.

or job skill classes in Tampa, GED classes in San Jose, and community college or skill-upgrade courses in San Francisco.

Involvement in job clubs was lower, just 13% of all mothers in the year prior to the wave 2 interview. This activity usually occurs in the initial weeks of enrollment in the TANF program. Earlier evaluation studies have shown that enrollments in job clubs and intensive job preparation activities are modest in some state work-first programs.[102]

Mothers respond to new welfare rules. A related issue is how mothers understand and respond to time limits and other rules designed to encourage movement into jobs.

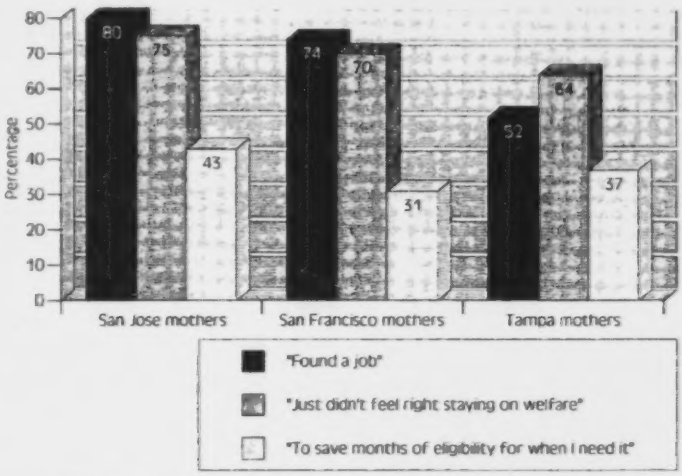
Among our sample of mothers in California and Florida, 52% reported they had exited the TANF system by the time of the wave 2 interview.[103] We asked why they decided to leave the welfare system. Sixty-eight percent (68%) reported that they "just didn't feel right staying on welfare." Just over a third (38%) said they wanted to "save months of eligibility for when I need them." This response indicates a clear grasp of the time-limited nature of cash aid.

Figure 5.12 reports on reasons for leaving TANF for each of the three counties. "Found a job" was the main explanation reported by mothers in San Jose and San Francisco. In all three counties the reported stigma attached to being on cash aid was quite strong. Banking months is commonly mentioned, although in San Francisco under one-third of those leaving TANF indicated that they were conserving their months of eligibility.

Most women did grasp the basic contours of the new welfare rules. For instance, 92% said, yes, when we asked whether welfare benefits were time limited over their lifetimes. Confusion persists, however, regarding the number of consecutive months for which they can remain eligible, versus lifetime limits. When we asked about the state-specific time limit, 78% of the women indicated either the federal lifetime limit (60 months) or their state's consecutive-month limit. But when we asked how many months in a row they could remain eligible for cash aid, just 13% correctly indicated the 24-month limit.

Despite this somewhat murky understanding of the new rules, many women reported that their behavior changed as a result time limits. Twenty-nine percent (29%) said they had searched for a job sooner than they would have under the old welfare

Figure 5.12 Why mothers voluntarily left TANF cash aid between Wave 1 and Wave 2, California and Florida



Note. Differences between sites are significant for mothers reporting that they found a job ($p < .01$) but not for the other two explanations. Analysis based on mothers who left cash aid between wave 1 and wave 2 (n=234). More than one response possible.

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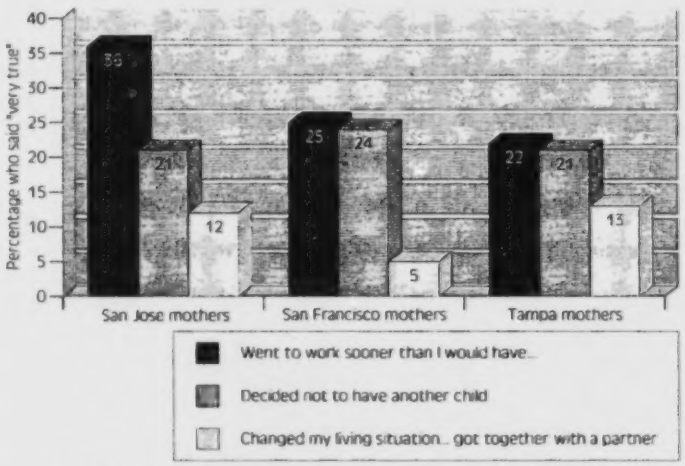
rules (Figure 5.13). Twenty-two percent (22%) reported they had decided against having another child, given the new eligibility restrictions. And a significant share of the mothers indicated they had "changed [my] living situation and got together with a partner."

We also inquired about whether women had hit their limit on consecutive months of TANF receipt, or had been involuntarily cut-off from cash aid. Very few of the mothers at wave 2 had yet hit the 24-month limit. But a significant number had been cut-off for not meeting work requirements, exceeding income limits, failing to file required paperwork or meeting other requirements. This proportion was highest in Tampa: just over 30% had been involuntarily discontinued in the 12 months prior to the wave 2 interview. This compares to 10% in San Jose and 19% in San Francisco.

Figure 5.13 Mothers' responses to time limits on TANF cash aid, Wave 2, California and Florida



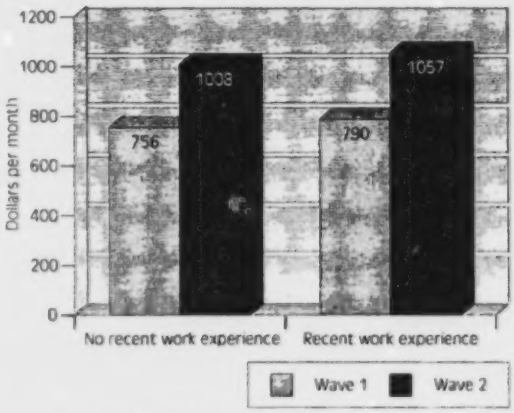
Notes. Differences between sites are only significant for "changed living situation" ($p<.05$). Analysis is for the 367 mothers (n) of the complete sample who reported that cash aid is time limited.

Does the mother's prior work experience—and related barriers to employment—matter? Remember that in Connecticut, when the Jobs First program did yield positive benefits, they were felt primarily by those with little recent work experience prior to entering the welfare-to-work program. We also split the California and Florida sample between those with, and those without, recent work experience. We then studied each indicator discussed in this section for these two subgroups. Fewer differences were discernible, however, for California and Florida families, compared to the same subgroups in Connecticut.

One way to illustrate how both subgroups benefited from gains in employment and income by wave 2 is to display total income by mother's level of recent work experience (Figure 5.14). We see that both groups experienced significant gains in *total income*, after taking into account both earned wages and income-support programs. These gains are significant between waves 1 and 2 ($p<.001$), but not significantly different between the work-experience subgroups.

We did find that receipt of TANF cash aid was significantly lower for mothers with recent work experience (Figure 5.15). Reliance on cash aid dropped slightly for mothers with no recent experience (first pair of bars, from left). On the other hand, no significant differences were apparent in the use of food stamps, over time or between subgroups.

Figure 5.14 Total income from all sources by mother's prior work experience, Wave 1 and Wave 2, California and Florida



Notes. Changes in total income between wave 1 and wave 2 are significant ($p<.001$). Analysis includes mothers with complete data, split by prior work experience level. N=154 mothers with prior work experience and n=281 without.

Summary

The economic vitality of many women's lives grew stronger in the two years following their entry into new welfare programs:

- The *share of mothers currently employed* climbed from 22% to 53%. A part of this buoyancy in employment rates is certainly due to the fact women were at a low point in their lives as they entered the welfare system. But these employment gains were experienced by many women with

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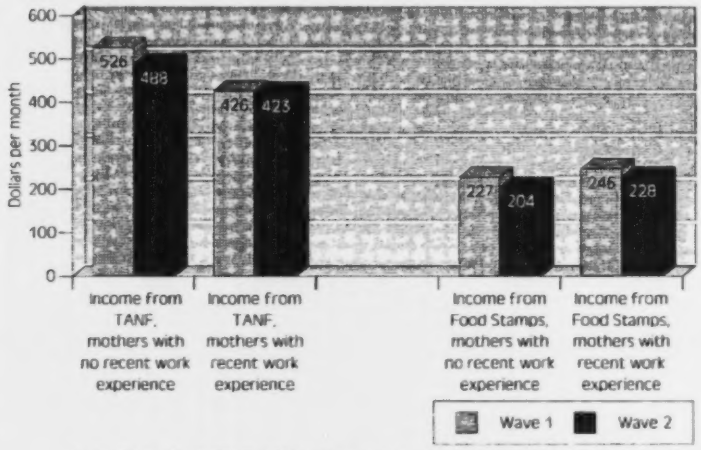
Figure 5.15 Income from TANF aid and food stamps, Wave 1 and Wave 2, California and Florida



Notes. Reduction in TANF aid between wave 1 and wave 2 is marginally significant for mothers with less work experience ($p<.07$, $n=452$), but not for those with more work experience. Reduction in food stamp income between waves 1 and 2 is significant for both groups ($p<.02$ for both statistical tests). Differences in TANF aid for mothers with no versus some recent work experience are significant (at $p<.02$ or stronger), but not significant between groups for food stamp income.

little prior work experience and multiple barriers to entering the labor force. The share of women who had worked in the prior 12 months rose from 60% to 80% between waves 1 and 2. The mean number of hours worked rose from 23 to 35 weekly.

- Many mothers worked *irregular shifts*. Just over 29% of the mothers employed at wave 2 said they were working nights, and 41% were working weekends. This holds important implications for when mothers can spend time with their young children and the kinds of child care that fit work schedules.
- Gains in *total income*—after accounting for wages, income supports, and reductions in cash aid—were significant for mothers. The average mother's total income rose from $773 monthly at wave 1 to $1,048 at wave 2. Reliance on TANF cash aid declined; but state policies ensuring only a moderate decline in cash benefits as women found jobs helped to sustain higher net incomes for many.
- Indicators of *broader economic security*—including measures of food insecurity and the mother's perception of being better off—were not as positive. Overall levels of food rationing and visits to food banks did not change appreciably over time. The mother's perception of being better off financially rose for women who had found a job but not for those who remained jobless.
- The *character of welfare-to-work programs*, as experienced by these women, varied across counties. In San Francisco, for example, women reported a much higher rate of participation in education and training programs, compared to those in Tampa.
- Most women generally understand the *new welfare rules*. Some responded to new restrictions in ways that may be positive: searching sooner for a job, or reducing their rate of child bearing. Many women, however, are not clear on the time limit for consecutive months of eligibility versus the lifetime limit.

SECTION 5B
The Mother's Settings: Households, Marriage, Social Support, and Neighborhoods

Next we turn to the mother's immediate surroundings and the extent to which they can draw support from those close by. While these dynamics are affected by economic well-being, the character of each woman's household, her propensity to marry and bear children, sources of support, and the quality of her neighborhood further contribute to the quality of her life. These contexts likely shape the mother's emotional well-being and the environment in which she is raising a young child. Yet debate persists in research and policy circles over the extent to which these social or institutional dimensions of daily life can be improved in tandem with, or independent of, economic forces.[104]

Household composition. We begin by describing basic elements of households in which mothers reside. A fair share of women live with other adults. The basic patterns of co-residency include:

- Just over two in five women (42%) resided solely with their child(ren), with no other adult in the household. This share was constant between waves 1 and 2.
- About one-third (34%) lived in a household with one other adult at wave 2. This share inched upward from 29% at wave 1, but failed to reach statistical significance.
- The remaining 24% resided in a household with two or more adults at wave 2.

Mothers with recent work experience were slightly more likely to live only with their child(ren), 44% for this subgroup, compared to 38% of those women with no recent experience. Again, this mean difference did not reach statistical significance.

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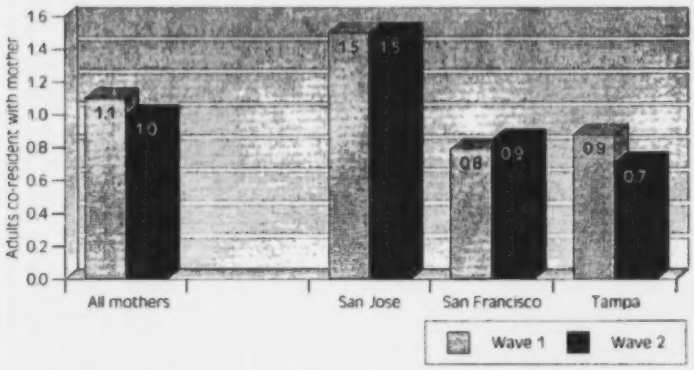
Figure 5.16 Count of co-resident adults in household, Wave 1 and Wave 2, California and Florida



Notes. Analysis based on full sample (n=452). Between-site differences are significant (p< 001), and wave 1 to wave 2 decline in mean count of co-residents is signficant for Tampa mothers (p< 05).

Differences among the three counties are significant at both waves. Figure 5.16 displays the average number of co-resident adults. A value of 1 indicates that the household has one adult in addition to the mother. The decline for all mothers from 1.1 to 1.0 adults is not significant. But the higher number of adults observed in San Jose households is highly significant. And the decline observed for Tampa mothers is statistically significant, although the magnitude is not large, declining from an average of 0.9 to 0.7 other adults in the household.

Marriage and birth rates. As we sampled women for the study, we asked candidates whether they were married and the age of their children. We were purposively trying to focus on single mothers. About 7% of the women, however, turned out to be legally married but separated from their husband (Figure 5.17). We retained these women in the sample, since these women defined themselves as single at entry to the study. Self-reported marital status did change significantly between waves 1 and 2, rising from this 7% figure to 12%. Since most of the sampled mothers were in their 20's and early 30's, some increase in marriage rates is to be expected. Marital rates among the counties rose in proportion to their wave 1 levels. Given that we sampled based on presumably single status, a rise in marital rates also is expected.

The share of women giving birth within the year prior to wave 1 and wave 2 interviews did not change appreciably: 13% at wave 1, and 12% and wave 2. The birth rate was significantly higher in Tampa, where 16% all sampled women gave birth in the year prior to wave 2. This rate compared to 10% in San Jose and 8% in San Francisco ($p<.05$).

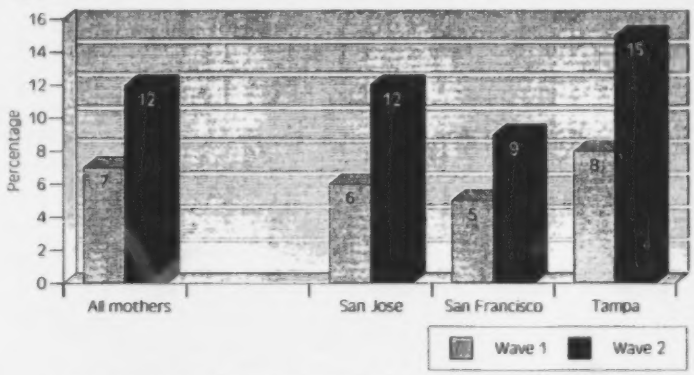
Tampa mothers indicated they had given birth to 2.5 children on average, compared to 2.4 and 2.2 in San Jose and San Francisco, respectively, at wave 2 (marginally significant, $p<.08$). Yet the largest number of children residing in the mother's household was observed in San Jose. Within 53% of these households there were 3 or more children (under 18) in residence. This compares to 41% and 50% of San Francisco and Tampa homes, respectively.

Social support. We asked several questions about different situations in which the mother may be benefiting from social support. Levels of support have been related to women's emotional well-being which, in turn, is predictive of children's early development. Mothers' levels of social support also help in predicting selection of center-based child care.[105]

Our measures of support included the ability to get a ride from a friend, to care for one's child on short notice, someone to talk to if feeling down, and whether the mother "felt alone as a parent" or received "a fair amount of help as a parent." When we combined these indicators into an index of social support we observed no significant changes between wave 1 and wave 2.

Two specific indicators—both related to child rearing—did improve over time. First, we display in Figure 5.18 the indicator pertaining to the mother's feeling little support versus "a fair

Figure 5.17 Marital status at Wave 1 and Wave 2, California and Florida



Notes. Analysis based on 451 mothers (n) with complete data. Gain in marital rate is significant (p<.001) but could be an artifact of sampling design and mother age. Between-site differences are not significant.

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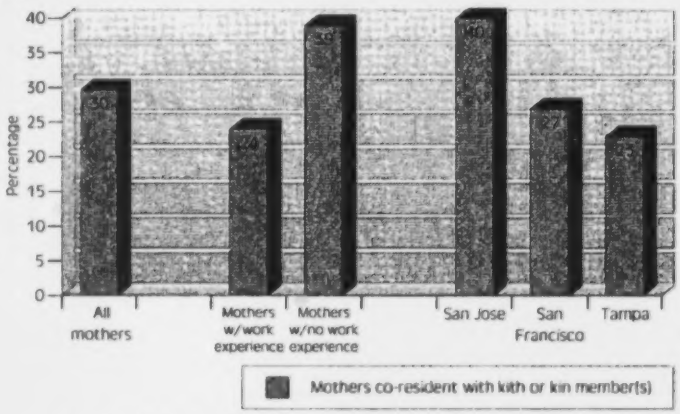
amount of help" as a parent. At wave 1 about 58% of the mothers reported that they benefited from sufficient support, versus 42% who said, "I feel alone as a parent." Those reporting "a fair amount of help" rose to 66% at wave 2, a significant gain ($p<.002$). We also see that mothers' reported level of support inched upward in each of the county subgroups. Reported levels of support on this indicator were not correlated with child age at either wave 1 or 2. The second indicator—whether the mother can count on someone to care for her child on short notice—moved upward as well ($p<.001$).

Living with kith and kin. Housing arrangements offer another window into the extent to which women can sustain adequate levels of social support. Figure 5.19 illustrates how co-residence with kin members or friends is linked to the mother's employment history. For all mothers, we see that just under 30% lived with a kith or kin member at wave 2. This level is significantly higher, 39%, for mothers who had no recent work experience, compared to those with recent experience, 24%. Between-county differences also are significant: in San Jose, 40% resided with a kin member or friend, compared to 27% in San Francisco and 23% in Tampa.

Geographic mobility. Housing arrangements are quite fluid for many families. Just over half of all Tampa mothers reported they had moved at least once within the year before the wave 2 interview. These shares were considerably lower in San Jose (31%) and San Francisco (32%). Across the full sample, 22% reported moving in with a friend or kin member, "because I needed a place to live or to reduce my expenses." Yet 32% reported moving out of larger households "so I wouldn't have to share a place with family or friends." This proportion was highest in Tampa, 40%, where we saw the strongest employment levels, compared to 26% in San Jose ($p<.03$).

Figure 5.19 Mothers living with kin members or friends, Wave 2, California and Florida

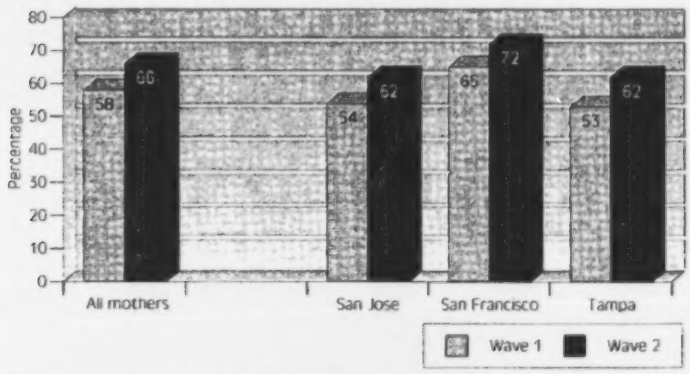


Notes. Mothers with work experience are significantly less likely to live with kith or kin member ($p<.001$). Between-site differences also are significant ($p<.001$). Analysis is for the complete sample (n=452).

Neighborhoods. In recent years scholars have detailed the variety of neighborhoods in which low-income families live. This holds implications for the range of jobs that are available close-by, basic levels of safety and children's ability to play outside, and the range of role models that youngsters observe as they grow up.[106] Low-income neighborhoods also vary markedly in the availability of child care centers and preschools.[107]

We asked mothers about discrete neighborhood problems—like safety, crime, physical conditions—as well as items pertaining to child rearing and the qualities of near-by parks and playgrounds.[108] We first report a general measure of how mothers viewed their neighborhoods "as a place to live and raise children." This varied significantly among the counties (Figure 5.20). Overall, 32% of the mothers felt that their neighborhoods were "poor" or "not good." This ranged upward to 52% in San Francisco, where many families lived in public

Figure 5.18 Share of mothers reporting "Fair amount of help as a parent", Wave 1 and Wave 2, California and Florida



Notes. Analysis is for 396 mothers (n) with complete data. Gain in social support related to child rearing is significant ($p<.002$). Between-site differences are not significant.

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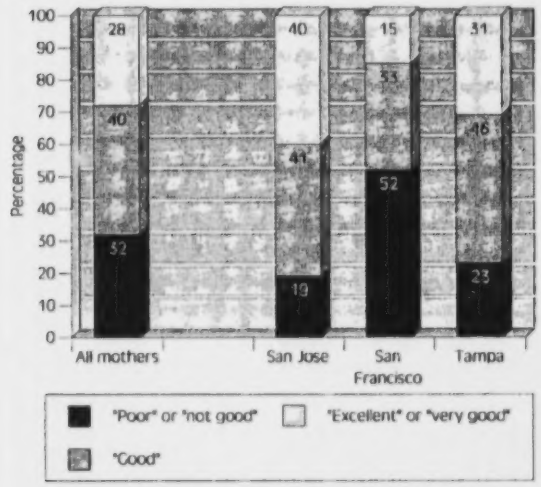
Figure 5.20 Mothers' views of their neighborhoods, "As a place to live and raise children," Wave 2, California and Florida



Notes. Between-site differences are significant (p<.001). Analysis for 397 mothers (n) with complete data.

housing projects, down to 19% in San Jose where families are dispersed among apartments and houses, often in suburban-looking communities.[109]

This pattern was mirrored when we asked mothers about the severity of discrete problems in their neighborhoods: crime, drug dealing, and joblessness. San Francisco mothers scored their communities highest on these problems (a mean of 2.1 on a 3-point scale), and San Jose mothers were least concerned with these issues (mean of 1.3, $p<.001$). This pattern was quite similar when we asked mothers about the quality of their own housing units, gauged by the incidence of leaky plumbing, roaches and insects, and problems with kitchen appliances. One in five mothers reported that their housing unit had problems with roaches or other insects.

Other measures of neighborhood quality tapped into the extent to which adults recognize family members and watch-out for each other, especially attending to children. A related set of interview items pertained to the safety and quality of nearby parks and playgrounds.[110] In Figure 5.21 we report standardized deviations from average z-scores, since the two indices (mindful adults and playground qualities) involved two different metrics. We see that mothers in San Francisco scored the safety and quality of their local playgrounds 0.3 standard deviations (*sd*) *below* the overall average, a significantly lower assessment ($p<.001$). On the other hand, women across the three counties did not differ significantly on the familiarity and friendliness of adult members found within their communities.

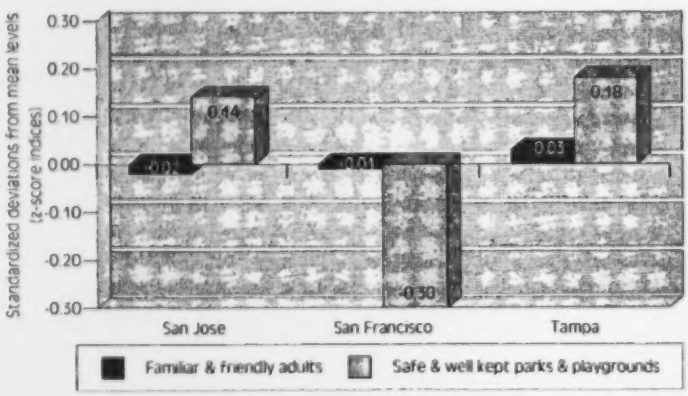
Finally, we asked how mothers felt about their new neighborhoods among those who reported moving in the prior 12 months. Overall, mothers responded that their new settings were "about the same" as their old neighborhoods. But in Tampa, 53% felt that they had shifted to "better" communities, compared to 33% of the San Francisco mothers. In San Jose, 51% felt they had moved to a better neighborhood.[111] When we split mothers between those with recent work experience, and those without, we found that the former rated their neighborhoods higher on both dimensions at marginally significant levels ($p<.08$).[112]

Summary

One telling question about welfare reform is whether maternal employment gains—and the rise in total income for some women—are of sufficient magnitude to raise the quality of their home environments. These findings show that in the initial years after mothers go to work, it is difficult to detect significant improvements, or to observe significant erosion of household quality.

- Mothers with stronger employment indicators exhibit a slight tendency to *live only with their children* and with no other adults. Another way to put this finding: we found no evidence to support the claim that rising employment strengthens extended families or larger households.

Figure 5.21 Child friendliness of adults and playgrounds in neighborhoods, Wave 2, California and Florida



Notes. Between-site differences are significant (p<.001). Analysis based on 294 mothers (n) with complete data.

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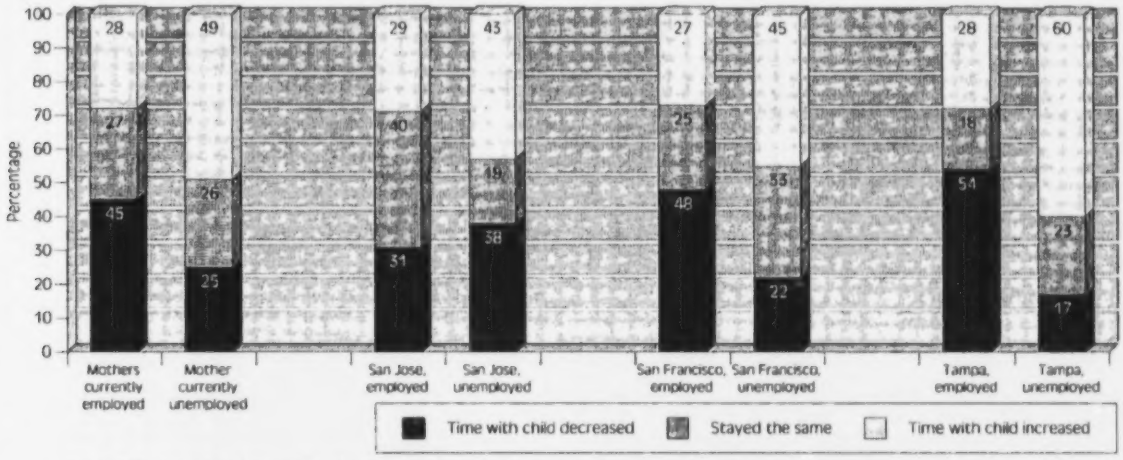
Figure 5.22 Change in mothers' time with children as many find jobs, Wave 2, California and Florida



Notes. Differences between employed and unemployed mothers are significant for all mothers, San Francisco and Tampa mothers ($p<.008$ or stronger). Difference for San Jose mothers by employment status is marginally significant ($p<.06$). Analysis is for 336 mothers (n) with complete data.

- The share of *women who were legally married rose incrementally* between waves 1 and 2, but this gain may be due to the age of participating mothers. Birth rates did not change over the two-year period between wave 1 and wave 2 interviews.
- Families *change their residence quite frequently*. About two in five mothers reported moving within the 12-month period preceding the wave 2 interview. About half the mothers in San Jose and Tampa viewed their new neighborhood as better than the last; just one-third of the women in San Francisco felt they had moved to a higher quality neighborhood.
- Mothers' *levels of social support are remarkably uneven* and sometimes quite fragile. Across the full sample, for instance, 42% reported that they felt "alone as a parent." We did detect some improvement between waves 1 and 2 on this particular indicator. But a variety of other support measures displayed no significant change over time.
- The *quality of housing* was quite variable, as described by mothers. Just over one in five women reported the presence of roaches or other insects inside their home.
- *Neighborhood quality*, as perceived by mothers, varied systematically among the counties. Women in San Francisco consistently reported more neighborhood problems and believed their community offered more risks and hazards, compared to women living in Tampa or San Jose.

SECTION 5C
Time with Children, Parenting Practices, Affection and Stress

Mothers' time with children. Inherent in post-1996 family policy—at the federal level—is a consequential shift in social philosophy. A new assumption replaced an old one: Poor women are now seen as better-off spending time on the job. Under the old AFDC framework, women were seen as mothers first and paid workers second. Let's begin by looking at how mothers are spending time with their children or with adults.

We asked mothers in California and Florida whether they felt that their time with the focal child had increased, decreased, or remained about the same in the year before the wave 2 interview. Figure 5.22 details how mothers responded, split by employment status. Overall, employment was closely related to whether mothers reported a *decrease* in time spent with the child. Among currently employed mothers (first bar from left), 45% said that time together had decreased, compared to 25% reporting decreased time among the jobless subgroup. This difference is particularly clear for San Francisco and Tampa mothers.

Similarly, Figure 5.23 reports on the number of hours that mothers report spending with other adults "during a typical weekday," split by employment status. Having asked this question at wave 1 and wave 2, we see that as employment became more steady for mothers at wave 2, they reported considerably more time with adults: rising from 35% to 70%

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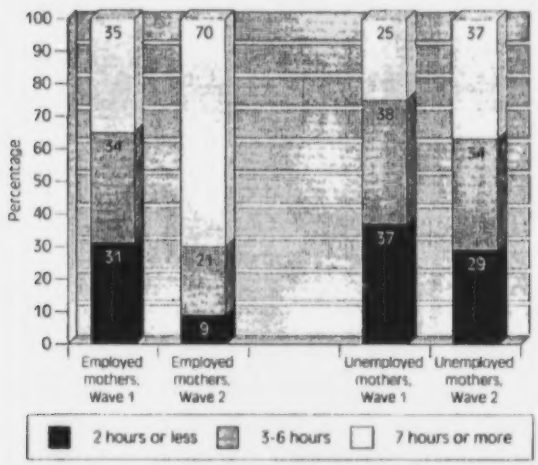
Figure 5.23 Change in mothers' time with adults, per weekday, Wave 1 and Wave 2, California and Florida



Notes. Differences by employment status are significant at wave 2 ($p<.001$), but not at wave 2. Analysis based on 398 mothers (n) with complete data.

who reported spending 7 hours or more each day with other adults. This increase is not observed at a (statistically) significant level for women who were jobless. The mean difference in mother's time with adults, by employment status, was significant for each county ($p<.05$ or stronger) when analyzed separately.

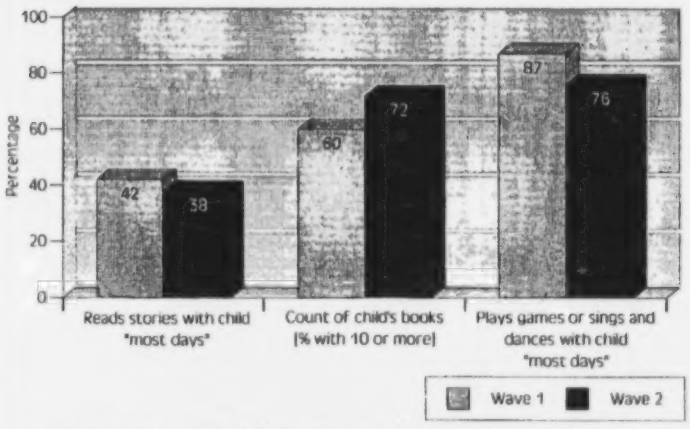
Children's time outside the home with other adults. Young children are likely to spend more time with other adults, and perhaps outside their own homes, as their mothers enter jobs. We will detail the rising share of children staying with nonparental child care providers, similar to the Connecticut findings. In addition, we asked mothers about other adults and social organizations with whom their children may interact.

Overall, children's time with other adults and institutions did not change significantly—except for substantial shifts in child care settings—between waves 1 and 2. For example, mothers continued to visit relatives with the focal child quite frequently: 87% of all mothers reporting weekly visits at wave 1, and 91% reporting weekly visits at wave 2. We did observe a significant difference in visits to a library (in the prior month), rising from 37% to 47% between waves 1 and 2. This gain was largely due to children's aging. Church attendance dropped insignificantly, from 39% of all mothers attending weekly at wave 1 to 36% at wave 2.

Parenting practices and activities with children. Several kinds of home practices have been empirically linked to young children's cognitive growth, pre-literacy skills, and school readiness.[113] We asked mothers about a variety of such practices, drawing largely from the HOME inventory, elements of which were incorporated into our home visits.[114] These items, for example, inquire about the frequency with which mothers read stories with their child, played games or sang, and the reported number of children's books available to the focal youngster.

In general, these elements of the home environment proved to be quite stable between wave 1 and wave 2—the same continuities in home environments seen within Connecticut families. Nor was change in parenting practices sensitive to change in the mother's employment status. This is a major finding. Let us walk through several indicators, highlighting the static nature of home environments and the few significant shifts that were discernible between waves 1 and 2.

Figure 5.24 Parenting practices linked to child development, Wave 1 and Wave 2, California and Florida



Notes. The rising count of children's books is signficant ($p<.001$, n=452), as is the declining significance of play ($p<.001$), before taking into the child's age. The changes are not significant after taking into account the child's age.

Figure 5.24 first shows baseline levels for reading practices at wave 1: 42% of all mothers reported reading a story to their focal child "most days." The down side of this finding is that the remaining 58% did *not* read with their child most days. Low-income parents nationally report a 20% higher rate of reading with their young child, compared to our sample (Appendix 2). Just over 60% said that

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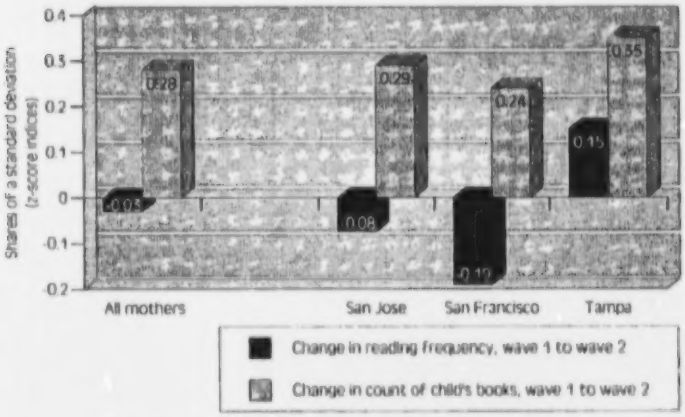
Figure 5.25 Change in reading frequency and book count, Wave 1 to Wave 2, California and Florida



Notes. Between-site differences are significant for change in reading frequency with the focal child ($p<.02$) but not for count of children's books. Analysis based on 397 mothers and children (n) with complete data.

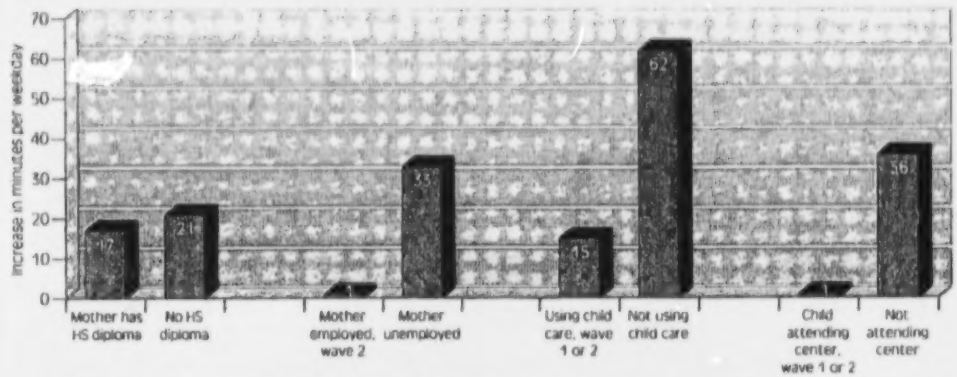
the focal child owns or has access to at least 10 books at home. Playing games, telling stories, or singing with the focal child was more prevalent at wave 1.

Figure 5.24 then shows a significant *increase* in the average count of children's books reported by the mother, and a significant *decline* in the frequency of playing games or telling stories with the child (both at $p<.001$). Yet after taking into account the child's age, these changes between waves 1 and 2 become insignificant. This suggests that changes in levels are linked to maturation.

On the other hand, we did observe significant change in some reading measures by county. In Figure 5.25 we display change as a fraction of one standard deviation (*sd*), allowing us to combine the reading frequency and book counts reported by mothers in different metrics. The first pair of bars (from left) mirror the pattern seen in the previous figure: among all mothers, the average frequency of reading declined between waves 1 and 2, while the average count of children's books increased (by over one-quarter *sd*). The remaining bars show that the decline in reading frequency was greatest for San Francisco mothers, while the gain in children's books was highest among Tampa families (about one-third *sd*). Part of the San Francisco pattern is attributable to the fact that these mothers reported the highest rate of reading at wave 1, compared to the other two counties ($p<.03$).

Additional analyses are required to understand why these between-site differences exist. One possibility is that greater stability in the mother's employment situation is related to more supportive parenting practices. San Francisco mothers experienced the smallest gain in employment rates, between waves 1 and 2. And mothers reporting less change in time with their youngster were somewhat more likely to increase their reading rate. A related hypothesis is that reading practices at home actually improve when mothers are working and their children spend more time in child care. We could not discern any main effects from employment status or time in child care.

Figure 5.26 Increase in television viewing for children in different settings, Wave 1 to Wave 2, California and Florida



Notes. Difference between child attending centers and those not attending is significant at ($p<.07$). Analysis is based on 397 mothers and focal children (n) with complete data.

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But the gain in reading frequency between waves is *higher* among mothers who reported spending *less time* with their child compared to mothers who report spending *more time* with the child at wave 2 (.23 *sd*).[115] We found no evidence that maternal employment depressed the frequency of reading or the mother's propensity to acquire more children's books. Still, the major finding is that these consequential parenting practices remained remarkably stable over time.

Television viewing. As many mothers found jobs, they placed their young children in the care of other adults—ranging from kin members or friends to teachers within formal centers and preschools. More adults then become involved in creating the social environments in which youngsters are raised. One window into these settings is to look at television viewing. We asked each mother to estimate how many hours the focal child spent watching TV during a typical week day.

Children watched just over 20 minutes more TV each day at wave 2, on average, compared to wave 1 (significant at $p<.06$). This increase was greatest in San Jose, where mothers reported a 45 minute gain between waves 1 and 2 ($p<.01$). Part of this increase may be due to children's aging and an ability to engage a wider range of programs. But even after adjusting for age levels, these gains between waves remained significant.

Do rising maternal employment rates help to explain this shift in children's basic environments? To inform this question we first calculated simple change scores by subtracting the mother's estimated hours of TV viewing by the child at wave 1 from her estimate at wave 2. This helps to control for differences in children's ages. We then looked at these change scores for youngsters in different situations. For example, we see in Figure 5.26 that children of mothers, unemployed at wave 2, increased their TV viewing by 33 minutes between waves on average. Whereas, children with employed mothers increased their viewing by just 1 minute.

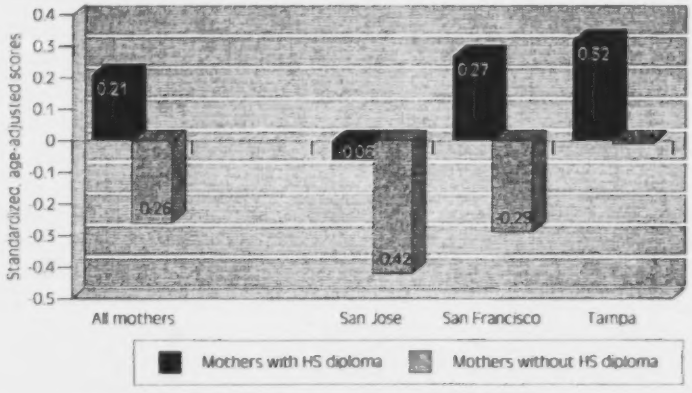
The differences by child care status are larger and statistically significant in one case. Among children who attended a formal center or preschool at either wave 1 or 2, their increase in TV viewing was only 1 minute on average, compared to 36 minutes for youngsters who did not attend a center at wave 1 or wave 2 ($p<.07$).

How mothers' characteristics are related to parenting practices. Research with wider populations of families, over the past 40 years, has revealed how certain attributes of parents are associated with positive home practices and child care choices, which together contribute to youngsters' early development.[116] But we know much less about these dynamics among welfare-poor and working-poor families. In addition, when we observe more positive home practices, it's important to understand the *a priori* factors that influence these parenting behaviors. Family policy makers sometimes argue that more positive parenting will flow from maternal employment: welfare-to-work programs will, according to some, lead to more positive role models for children. Alternatively, effective parenting practices may stem from longer-term conditions, including the mother's school attainment level, language proficiency, or robust mental health.

To illustrate, let's focus on the frequency with which mothers report reading with their young child at wave 2. We saw above how reading practices in the home are quite stable over time. Mentioned above, mothers with more stable employment and those reporting little change in time spent with children are somewhat more likely to increase their reading activities. But these incremental changes are dwarfed by differences in mothers' education levels. In Figure 5.27 we split mothers between those who have received a high school diploma and those who have not, then display reading frequency.

The majority of mothers reported reading to the focal child "once or twice a month" or "once or twice a week." We standardized these scaled scores, after adjusting for the child's age, and express them as units of one standard deviation (*sd*) with the mean score set at zero. For instance, among mothers with

Figure 5.27 Mothers' education level and reading with children, Wave 2, California and Florida



Notes. Between-group differences, based on mothers' education levels, are significant for all mothers ($p<.001$), and significant with generally less strength for San Jose ($p<.08$), San Francisco ($p<.001$), and Tampa ($p<.06$). Scores are expressed as units of standard deviations, after taking into account child age. Analysis based on 397 maternal reports (n) of reading practices with focal child.

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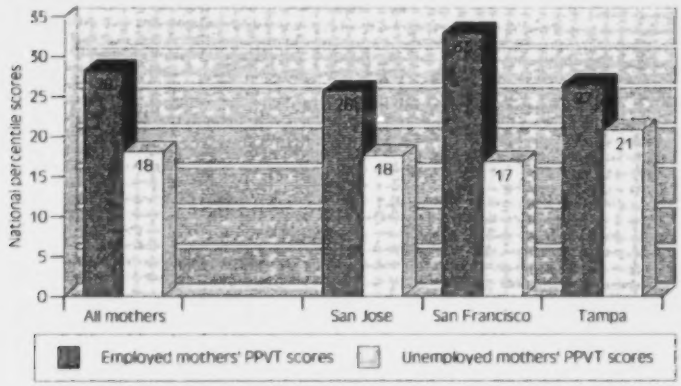
Figure 5.28 Mothers' language and cognitive proficiency (PPVT) percentile scores, Wave 2, California and Florida



Notes: Between-group differences based on employment status are significant for all mothers ($p<.001$), and for San Jose ($p<.03$) and San Francisco mothers ($p<.001$). Between-site differences are not significant. Analysis based on 246 women (n) with complete PPVT data in English or Spanish.

high school diplomas (first bar from left), the mean reading frequency equaled about one-fifth *sd* above the mean. The average mother without a diploma reported reading frequency pegged at about one-fourth *sd* below the mean. The gap between the two groups is almost one-half *sd*, a sizeable difference. Note also that both groups of San Jose mothers are reading with their children below the mean for the entire family sample, perhaps related to this site's higher concentration of non-English speaking mothers.[117]

Mothers' cognitive and language proficiencies. A major part of the child's home environment is characterized by their parent's own cognitive skills and verbal proficiencies. We assessed these attributes during our home visits by administering the Peabody Picture Vocabulary Test (PPVT) in English or Spanish. This assessment has been given to large and diverse populations of children and adults, providing national norms against which the mothers' scores can be compared.

Figure 5.28 displays PPVT percentile scores for mothers by county and employment status. Mothers employed at wave 2 (first bar from left) scored at the 28th percentile based on national norms. This means that just under three in four adults score higher on this test of cognitive and language proficiency. Among jobless mothers, the average PPVT score moves down to the 18th percentile. Differences among the counties are not statistically significant. But for San Jose and San Francisco, the PPVT score is related to employment status. San Francisco mothers who were employed at wave 2, scored at the 33rd percentile; those unemployed scored at the 17th percentile.

This illustrates how specific attributes of mothers—which likely contribute to parents' employability—also likely advance their child's early development. Thus it becomes difficult to disentangle the direct effects of employment on home environments, independent of these deeper maternal characteristics that contribute both to the likelihood of holding down a job *and* their child's development.

Mother-child relationships and the home's social climate.
We asked mothers a variety of questions about their affection toward their child, emotional rewards linked to child rearing, and how they were coping with parenting responsibilities. On just two of nine measures did mothers' feelings toward the focal child inch upward between waves 1 and 2. One item asked, on a four-point scale, how "warm and loving" the mother felt toward the focal child "at the end of a long day." Figure 5.29 shows that positive emotions rose incrementally between wave 1 and wave 2. On the scale, mothers' average scores rose about one-fifth of a standard deviation, modest in magnitude yet statistically significant ($p<.006$). This gain is observed among San Jose and Tampa mothers. But these rising rewards from child rearing were not related to the mother's employment status.

This same pattern appeared with a second measure, asking mothers the extent to which they are "able to handle things with [the focal child]." This indicator of coping rose slightly and significantly between waves. For all mothers this gain was just under one-fourth *sd*, rising almost one-third *sd* among San Jose mothers. These differences remained statistically significant after taking into account the child's age.[118] But they are not associated with the mother's employment status.

As seen with parenting practices, the mother's *a priori* characteristics are more strongly related to her emotional affect toward the child than employment status. We split all mothers into two subgroups, for example, defined by whether they had obtained a high school diploma. Then, we examined possible differences in the degree to which they felt warm and loving toward the child, coping with their parenting role, and a composite index of four emotional rewards from their child that made them feel happy.[119] On each of these three measures, mothers who had completed high school scored higher, compared to those without a diploma. On the coping measure, the difference was just under one-third *sd*; on the emotional rewards composite, high school graduates scored a modest one-fifth *sd* higher than women without a diploma.

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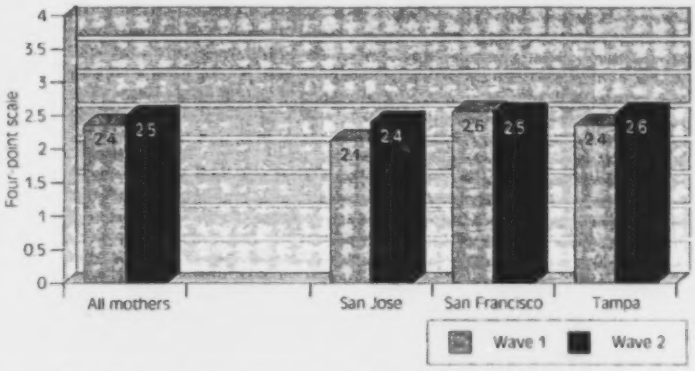
Two series of questions were asked about the social climate of the home and adult relationships inside the household. The first set included items such as, adults in the household "fight a lot"; "we often criticize each other"; and "we often lose our tempers." The second set focused on related actors who may cause uncertainty for the family, including unwanted housemates, co-residents with substance abuse problems, the electricity or phone being cut-off in the prior year, and whether the mother has a relative or close friend in prison.

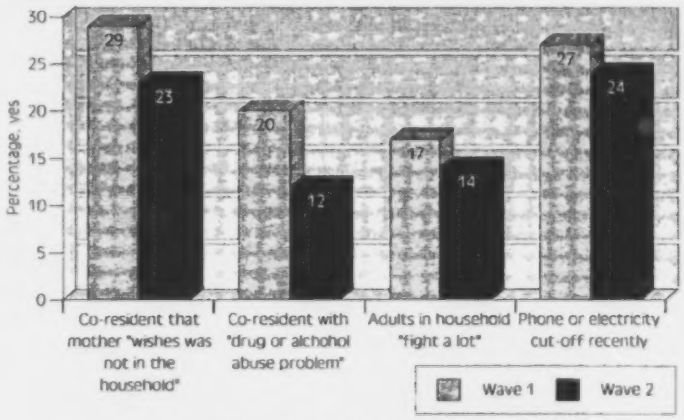
Home environments, as characterized by these sources of stress, improved slightly between waves 1 and 2. Figure 5.30 illustrates the general pattern. The share of women reporting unwanted co-residents in their homes fell from 29% to 23% between waves, modest in magnitude but statistically significant ($p<.04$). This was explained largely by a decrease in housemates with substance abuse problems (declining from 20% to 12%, $p<.001$). This is related to whether mothers were working at wave 2: employed women reported a decline of 19% to 9%, whereas; jobless women reported a decline only from 21% to 16% between waves.

Figure 5.29 Mothers reporting, "I feel warm and loving toward child at the end of a long day," Wave 1 and Wave 2, California and Florida



Notes. Increase between waves 1 and 2 is low in magnitude but significant for all mothers ($p<.006$), and for mothers in San Jose ($p<.007$) and Tampa (.03). Based on analysis of 398 mothers (n) with complete data.

Figure 5.30 Sources of emotional stress in the household, Wave 1 and Wave 2, California and Florida



Notes. The declining incidence of unwanted co-residents is significant ($p<.04$, $n=452$), as is presence of a co-resident with substance abuse problem ($p<.001$).

Summary

One area of social life changed dramatically after mothers entered welfare-to-work programs—at least among those who found jobs in the two years separating wave 1 and wave 2 interviews: *Mothers reported spending less time with their young child* and considerably more time with other adults. Among women employed at wave 2, almost half reported spending less time with their young child; just one-fourth of all jobless women reported spending less time. The share of employed women who reported spending seven hours or more each day with other adults doubled, rising from 35% at wave 1 to 70% at wave 2.

The extent to which other areas of home life changed, either for mother or child, is less clear:

- The *time* that young children spend with parents or kin members, visiting the library or engaged in pro-learning activities, or the frequency of church attendance did *not* change appreciably over the two-year period between waves 1 and 2.
- Mothers reported *acquiring more children's books* for their children over time, although this difference between waves 1 and 2 disappears when the child's age is taken into account. At the same time, mothers reported *reading* with their child *less frequently* at wave 2 than the level of engagement reported at wave 1.
- Children overall *increased their television viewing*—a gain of about 20 minutes in a typical weekday. Importantly, children of jobless mothers increased their TV viewing more (about 30 minutes more per day) than youngsters of employed mothers (only about 1 minute daily). This is

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related to the fact that employed mothers place their children in child care centers at a higher rate than jobless mothers, and we observed at wave 1 that these centers rely on the TV infrequently.

- Parenting practices that contribute to child development are more strongly related to *prior maternal attributes and conditions than maternal employment per se*. For example, the mother's school attainment level or cognitive proficiencies are more highly predictive of frequent reading with the child, compared to any explanatory power of employment status.
- Mothers' feelings of *affection, emotional rewards, and general coping with the child-rearing role* improved slightly between waves 1 and 2. But these gains may be more related to the youngster's maturation. The gains—appearing only for two of nine measures—are unrelated to maternal employment.

In general, mothers' gains in economic well-being—two years after entering welfare-to-work programs—did not translate into stronger parenting practices or home environments. The major change was that mothers who found jobs saw their children less during the week.

SECTION 5D
Maternal and Child Health

We asked mothers a variety of questions about their physical and mental health, their child's health, and access to health insurance and clinical services.

Physical and mental health. Mothers were asked to judge their general physical health on a five-point scale, ranging from "poor" to "excellent." This basic self-assessment is highly predictive of other health outcomes, including mortality rates and chronic conditions that may inhibit employability.[120] Mothers reported their health between "good" and "very good," on average, at both wave 1 and wave 2.

We observed significant gains in their perceived physical health at two of the three sites between waves (Figure 5.31). The overall gain (first pair of bars) is statistically significant ($p<.02$) but equals a modest one-sixth *sd*. The overall gain is being driven largely by the increase observed for San Francisco mothers ($p<.003$). We have more to learn as to why these women viewed their health as improving. Women with rising employment rates did not report stronger health levels. Nor could we detect any significant change in mothers' ratings of their child's physical health.

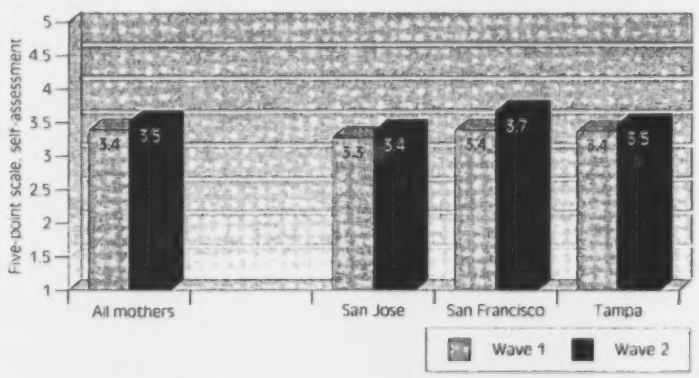
Mothers' mental health—especially marked levels of emotional depression—represent one of the strongest predictors of children's early development. An earlier project paper, drawing on the wave 1 data, reports strong associations between maternal depression and a higher incidence of social problems among the children. This finding is consistent with earlier research.[121]

To assess women's mental health, we administered the Center for Epidemiologic Studies Depression Inventory (CES-D) at waves 1 and 2.[122] This series of scales consists of items, such as "you felt lonely"; "were happy"; "felt that people disliked you"; "could not shake-off the blues, even with help from family and friends." Scores range from zero to 60, after totaling the 20 individual questions. Clinical psychologists who use the CES-D consider a score of 16 or higher as demonstrating "depressive symptoms" that are debilitating, at least at moderate levels, for the individual. One study, conducted to determine the incidence of these symptoms among a nationwide sample, found that under one in five adults reaches this threshold point and suffers from moderate to severe levels of depression.[123]

Overall, mean depression levels for California and Florida mothers did not change significantly between waves. This finding continues to hold worrisome implications for children's development, since at wave 2 fully 44% of the mothers scored above the threshold of 16, the same share observed at wave 1.

Maternal depression rose slightly for mothers who were not employed at wave 2 (Figure

Figure 5.31 Mothers' physical health, Wave 1 and Wave 2, California and Florida



Notes: Gain between waves 1 and 2 for all mothers is significant ($p<.02$) but equal to one-sixth of a standard deviation (sd). The gain for San Francisco is significant ($p<.003$) and equals one-fifth sd.

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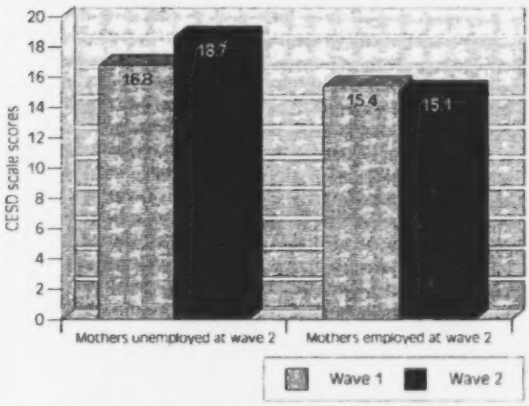
Figure 5.32 Mothers' emotional health and depression (CES-D scores), Wave 1 and Wave 2, California and Florida



Notes. Depression levels for unemployed and employed mothers at wave 2 are significantly different ($p < .002$). Changes in depression levels between waves are not significant. Based on 451 mothers (n) with complete CES-D data.

5.32). Importantly, depression levels are consistently *lower* for employed mothers, both at wave 1 and wave 2. This gap equaled one-third *sd* at wave 2. More research is required to understand the direction of causality. That is, women who work may experience reduced levels of depression. Alternatively, women with stronger mental health may be more likely to successfully transition from welfare to work. And as seen in Connecticut, women dealing with welfare time limits and still remaining jobless may suffer from increased levels of depression.

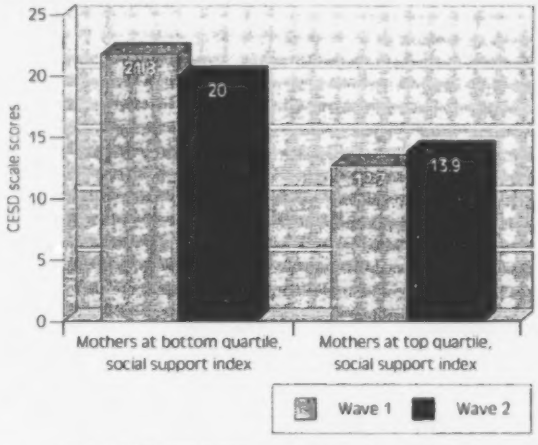
Emotional depression is likely rooted in deep-seated social dynamics that precede involvement with the welfare system or sporadic episodes of employment. For example, in Figure 5.33 we report CES-D scores for mothers with relatively low and high levels of social support. The first pair of bars shows high levels of depression for women in the bottom quartile on a social-support index, relative to the second pair of bars that pertain to women in the top quartile of support.[124] The difference between the low and high social-support groups equals a sizable one-half *sd*. More work is required to identify other correlates and determinants of mothers' emotional well-being, and the extent to which employment and income streams may make a difference over longer stretches of time.

Health insurance coverage. Federal and state governments have expanded access to child health insurance in recent years, targeting new coverage on working poor families who stay off the welfare rolls. In addition, eligibility for the federal Medicaid program was de-linked from TANF cash aid under the 1996 reforms in a related attempt to strengthen incentives for staying employed. Debate persists over the extent to which welfare clients, after moving into jobs, understand that they now may retain their Medicaid coverage, whereas before they were no longer eligible. At the same time, employer benefit plans may be picking-up some families when the mother secures a steady job.

We did observe some gains in private coverage for women moving from welfare to work by wave 2. But the share of families served by employer benefits remains very small, perhaps given that many are entering low-status jobs. Figure 5.34 shows that Medicaid remains the primary source of health insurance for mothers, with coverage rates varying among the three counties.

Overall, 10% of the mothers reported coverage by their employer, compared to 78% who reported coverage through Medicaid at wave 2. In San Francisco, fully 99% of the mothers reported insurance coverage, 89% through Medicaid and 10% via employers. This dips down significantly for Tampa mothers: just 58% were covered through Medicaid and 9% via employers. Given that some Tampa mothers had been working up to a year more than the California mothers, the shares who remained eligible for Medicaid may differ. An unknown share of Florida mothers may have obtained CHIP coverage since 1998. Overall, the limited extent to which employers are providing health benefits is worrisome.

Figure 5.33 Mothers' mental health and depression (CES-D scores) by social support level, Wave 1 and Wave 2, California and Florida



Notes. Differences in depression between mothers in the bottom and top social-support quartiles are significant and equal two-thirds sd at wave 1 and one-half sd at wave 2. Analysis based on 111 mothers (n) in bottom social-support quartile and 114 mothers in top quartile.

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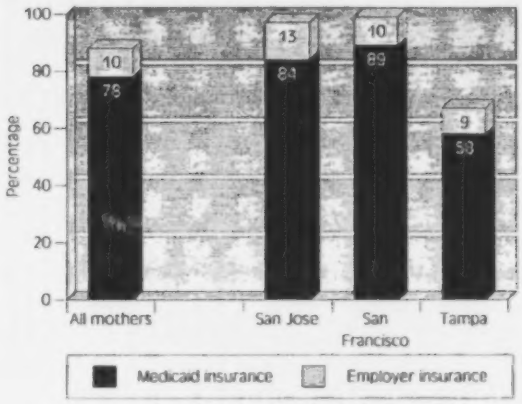
Figure 5.34 Mothers' health insurance coverage, Wave 2, California and Florida



Note: Between-site differences in Medicaid enrollment rate are significant (p<.001). Based on analysis of 449 mothers (n) with complete data.

Turning to the focal children, Medicaid coverage in the California counties was near universal at both wave 1 and wave 2. In Tampa, the share of children covered drifted downward from 89% at wave 1 to 86% at wave 2, although this may be due to a slight gain in employer coverage of children.

Summary

The persistently high rates of emotional depression represent the most troubling finding in the health arena. We observed no improvement in women's mental health—with 44% demonstrating depressive symptoms—across the two waves of data collection. Levels of depression rose slightly for jobless women, and this group showed consistently weaker mental health than employed women. We found no evidence that rising employment rates erode the mother's emotional well-being. Nor does employment seem to reduce bouts of depression, at least not over the two-year period that we observed.

Positive trends are apparent on other health fronts:

- Mothers' reports of their own physical health inched upward between waves 1 and 2, with gains most impressive in San Francisco. These improvements are not associated with maternal employment rates.
- Health coverage for mothers is near universal in San Jose (97%) and San Francisco (99%), but slips to 67% in Tampa. In no county were more than 13% of all women covered by employer insurance.
- Children were covered even more consistently than mothers at wave 2. Only in Tampa did we see some erosion of Medicaid coverage, slipping down to 86%.

These particular counties have accomplished much in making sure that families moving off welfare remain under a health insurance plan. Yet for the foreseeable future, government must assume considerable responsibility if universal coverage is the policy goal, since few employers are extending health benefits to these families.

SECTION 5E
Child Care: Types, Character, and Cost

Our earlier report, issued two years ago, focused in part on the types and quality of child care that mothers were selecting soon after entering work-first programs at wave 1.[125] During the wave 1 data collection we visited child care settings, be they formal centers or home-based arrangements, and conducted extensive quality assessments. Several important findings emerged from these baseline data:

- The majority of mothers were using a child care provider at least 10 hours per week, two to four months after entering their state's welfare-to-work program. Focal children spent 39 hours each week with this caregiver on average.
- Many children had moved into child care settings that displayed mediocre to poor quality, as their mothers entered job preparation activities and employment. The quality of center-based care was low in many Connecticut and Florida settings, relative to centers in San Francisco and San Jose.
- The types of care selected varied sharply among the states. In Connecticut, just 13% of all mothers selected a center-based program, compared to 29% in California and 70% in Florida.[126]
- The share of women taking-up their child care subsidies varied among the counties, generally corresponding to the proportion that accessed center-based programs.

About two years later, during the wave 2 interviews, we repeated many of the same child care questions. We did not return to the child care settings to conduct quality assessments; rather we invested project resources in conducting the home visits and in-depth child assessments. We begin the present section by looking at which mothers are using child care and how the types of care chosen are evolving as their youngsters reach age 3 or 4 years-old.

The rising use of child care. As maternal employment rates have climbed, so has the use of child care. Beyond the influence of finding a job, we know from earlier research that as children reach age 3 or 4, their enrollment in center-based programs rises significantly.[127] The first pair of bars in Figure 5.35, pertaining to all mothers, shows that the share using a child care provider of any type moved up from 68% at wave 1 (after

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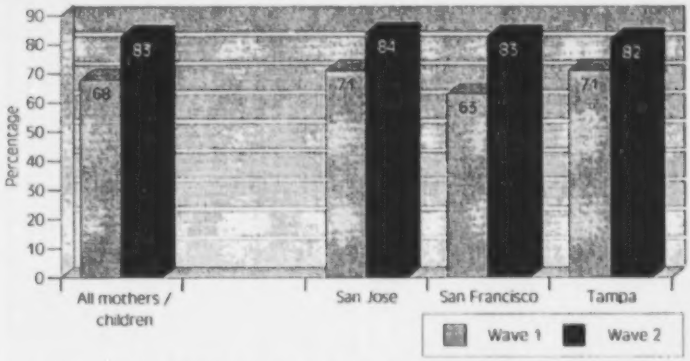
Figure 5.35 Share of children in child care (>10 hours per week), Wave 1 and Wave 2, California and Florida



Notes: Increase in child care use is significant for all families ($p<.001$) and in each site (at $p<.02$ or stronger). Between-site differences are not significant. Analysis for 452 families (n) with complete data.

entering their work-first program) to 83% at the wave 2 interview. This rise is significant ($p<.001$), as is the increase seen for each county.

Employment certainly plays a role in boosting child care use. Among children with employed mothers at wave 2, fully 95% were using a provider at least 10 hours per week. Even among jobless women, 69% were using child care. This corresponds to earlier studies showing that as children reach 3-4 years of age, many mothers believe that it is important to enroll their child in some kind of group activity.[128] Just under one in five mothers (19%) reported using more than one child care arrangement more than 10 hours per week at wave 2.

Children continue to spend many hours with their main child care provider, as shown in Figure 5.36. Those enrolled in centers attend almost two hours more per week, compared to those with kith or kin members (37 versus 35 hours, respectively, $p<.02$). Hours in care do not differ significantly among the three county sites. Hours in family child care homes were a bit higher, 41 hours per week for children enrolled (not shown in figure).

There is little question—now that even mothers with infants are required to enter work activities and find jobs—that child care is an essential employment support. These women reported that unstable child care arrangements continue to interfere with a successful transition from welfare to work.

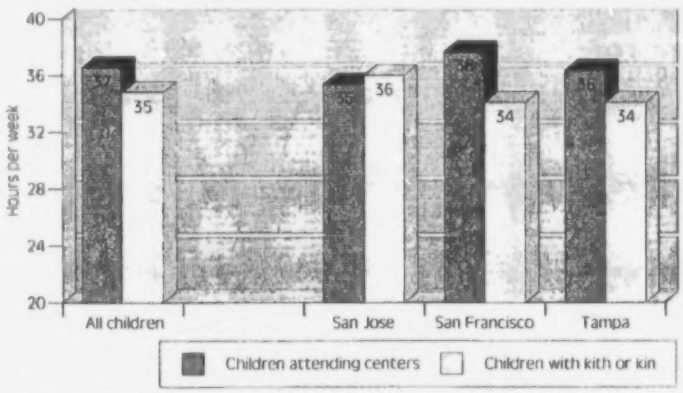
Just under one-third (30%) of all unemployed women reported that they had quit a job due to child care problems in the year preceding the wave 2 interview. Roughly the same proportion said that they decided not to take a new job or enter a training program because they could not find a satisfactory provider.

Types of child care selected by mothers. We observed significant changes in the types of child care that mothers selected by wave 2, compared to their wave 1 choices. Young children's home environments may be changing very little. But child care settings are shifting significantly.

These shifts in child care settings depend on two sets of factors: the attributes of mothers and families, and the local supply of different options. Figure 5.37 displays basic patterns across the three county sites. The use of center-based care increased substantially in San Jose, rising from 18% to 38% between waves 1 and 2, as well as for San Francisco children, climbing from 37% to 46%. The use of centers at wave 1 was already quite high in Florida, 69%, and this share fell to 62% at wave 2.[129]

The focal child's age is related to the type of care selected among sampled families. In addition, the mother's education level is a strong correlate. To illuminate these systematic differences, we split focal children into three age groups of roughly equal numbers: those under 36 months of age at wave 2, those 36-48 months, and those over 48 months (but have not

Figure 5.36 Hours children spend with main child care provider, Wave 2, California and Florida



Notes: Differences in hours of care between child care types are significant ($p<.02$). Between-site differences are not significant. Analysis based on 374 mothers (n) using child care.

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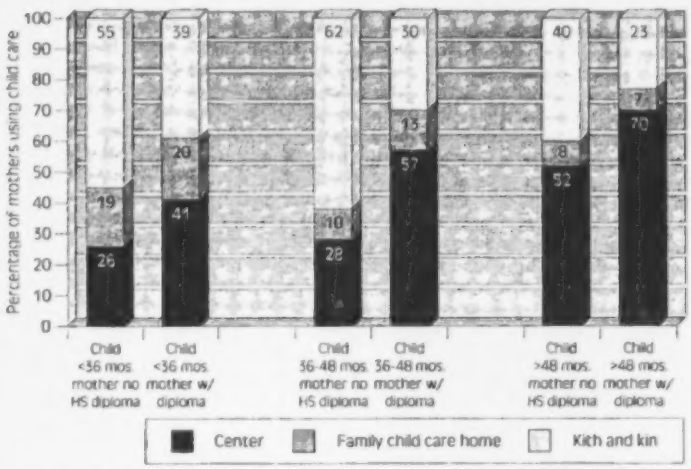
yet entered kindergarten). Then, we examined the types of child care selected, splitting mothers between those who had completed high school and those without a high school diploma.[130]

Basic patterns are displayed in Figure 5.38. The first pair of bars displays the type of child care that focal children were attending at wave 2, split between those with or without a high school diploma. We see that children with better educated mothers are more likely to have entered a center (41%), compared to children with mothers who did not finish high school (26%). The shares attending family child care homes do not differ much, meaning that the use of kith or kin is significantly less for mothers with a high school diploma.

For the oldest child cohort, age 48 months or older, we see that larger proportions are attending centers. Yet the difference persists between those with mothers who completed high school (70% of their children attended centers), compared to those with mothers who never finished high school (52% in centers). Thus we see that child age does make a difference in the likelihood that mothers select centers. But also influential is the mother's education level, and it matters for each of the three age cohorts.

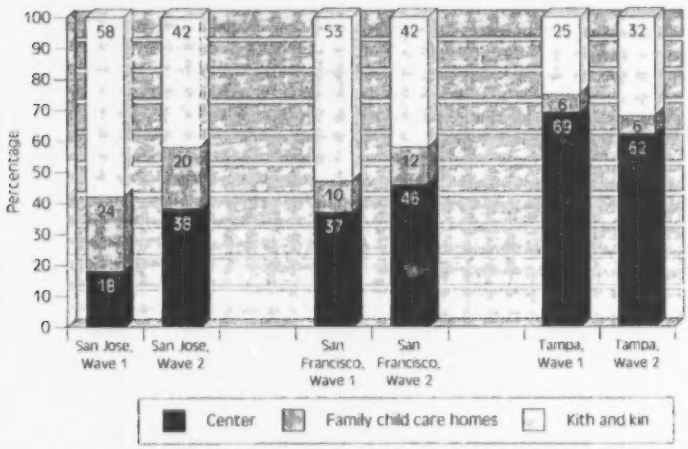
Figure 5.38 Type of child care by child age and maternal education level, Wave 2, California and Florida



Notes: Type of child care selected is significantly different among the three age groups ($p < .002$), and between mothers with and without a high school diploma ($p < .001$). Sample sizes (n) for children less than 36 months of age, 36-42 months, and more than 42 months equal 119, 176, and 140 children, respectively.

Who pays for child care? The federal government increased spending on child care programs as part of the 1996 package of welfare reforms, largely through the Child Care and Development Block Grant which provides funding to the states. In turn, many states have appropriated additional funding for early care and education programs to aid welfare-poor and working-poor families. Since 1996 much of this state-controlled funding has come from transfers of unspent TANF dollars, equaling about $2 billion allocated to child care in the 2000-01 fiscal year.[131]

Figure 5.37 Types of child care selected by mothers, Wave 1 and Wave 2, California and Florida



Notes: Between-site differences in type of child care selected are significant at wave 1 and wave 2 (both at $p < .001$, $n = 374$).

Still, some women are paying out of pocket for child care. They may not be tapping into the subsidy system, detaching from child care support when they find a job (even though they remain eligible), or some women are advancing co-payments and drawing partial public support. We look first at the extent to which women have entered the child care market, or whether caregiving is contributed by kith or kin members at no monetary cost.

Figure 5.39 displays basic descriptive data for wave 2. The first bar pertains to all 375 mothers who reported using a child care provider for at least 10 hours per week. About one in six women (15%) reported that they paid out of pocket for their provider, excluding those who were contributing a co-payment. Just over two-thirds (69%) were

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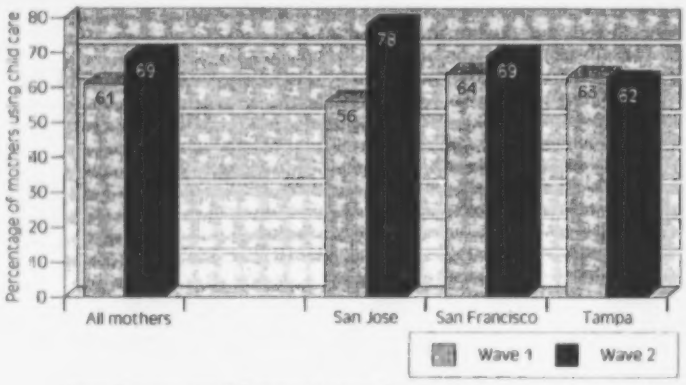
receiving a public subsidy of some kind, either a subsidized slot or portable voucher that at least partially covered the cost of care. Only a small slice (2%) drew cash support from a friend or kin member, or had an explicit agreement to exchange household services. The remainder, 14%, reported that no cash or subsidy support was involved in securing their child care provider, mainly kith and kin who required no payment.

The share of mothers drawing a public subsidy differs among the county samples, ranging from 62% of all mothers in Tampa to 78% among San Jose mothers. Also in San Jose only 8% of all mothers were paying out of pocket for child care, compared to 17% in Tampa and 14% in San Francisco.

Figure 5.40 Mothers participating in child care subsidy programs, Wave 1 and Wave 2, California and Florida

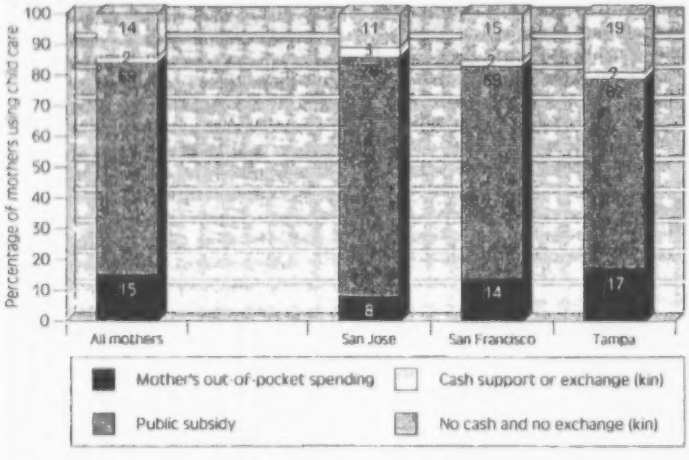


Notes. Between-site differences in share of mothers drawing child care subsidies are significant ($p<.03$, $n=374$).

The use of child care subsidies rose overall between waves 1 and 2 — with improvements centered in San Jose and San Francisco. We report on the share of mothers who reported a subsidy of any kind, whether from the welfare office or not, as a percentage of those who were using child care.[132] For the entire California and Florida sample, this percentage rose from 61% at wave 1 to 69% at wave 2 (Figure 5.40). Most of this increase is attributable to a strong gain among San Jose mothers: the subsidy take-up rate climbed from 56% to 78%. We observed a five percent increase in the take-up rate among San Francisco mothers, and Tampa held steady at about 62%.[133]

This apparent gain in San Jose, as well as steady take-up rates at the wave 1 level in San Francisco and Tampa, are somewhat surprising. We would expect that take-up rates would decline as mothers moved from welfare to work, similar to the declining use of food stamps and Medicaid. The two California counties appear to be bucking this trend, even as employment rates rose for their mothers. An earlier policy brief from the GUP project details some of the innovative efforts undertaken in these two counties to raise subsidy utilization.[134] These efforts appear to be paying-off.

Figure 5.39 Sources of child care financing, Wave 2, California and Florida



Notes. Between-site differences in share drawing public subsidies are significant ($p<.03$). Analysis based on the 375 mothers (n) who reported using a childcare provider at least 10 hours weekly at wave 2.

Subsidy take-up rates differ remarkably by the type of provider selected. For example, 84% of mothers who selected a center-based program reported participation in a subsidy program, compared to 42% of mothers using a kith or kin provider (Figure 5.41). This subsidy take-up rate for center users is quite similar across the three county sites. But the share of mothers who selected a kith or kin provider, and then drew a subsidy, ranged from just 12% in Tampa to 60% in San Jose. This illustrates how local policies, the practices of frontline caseworkers, and perhaps the local supply of center-based programs all contribute to the use of child care support.[135]

Mothers' out-of-pocket spending for child care. The share of women paying with their own cash to help meet child care costs rose between waves 1 and 2 in all three counties. This appears to be due to co-payments for

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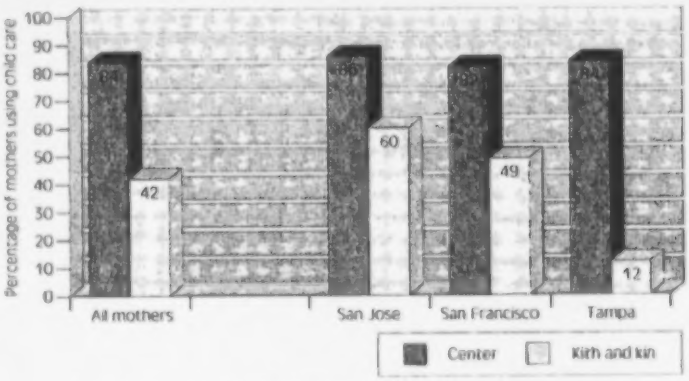
women who had found jobs and were earning more. Tampa has a low income threshold above which mothers contribute a co-pay. Between waves 1 and 2 the percentage of Tampa mothers paying out of pocket rose from 46% to 66%. In contrast, the share of mothers paying for care in San Francisco (where few were required to put forward a co-payment) rose from just 8% to 20%.

At the same time, the average amount of dollars paid out of pocket declined between waves in California. In San Jose, private payments declined from $282 monthly in wave 1 to $215 in wave 2 (among women who reported a cash outlay). In San Francisco, these monthly payments fell from $256 to $166. This is attributable to rising subsidy take-up rates and the rising incidence of co-payments required of women who experienced gains in earnings.[136] Only in Tampa did the average out-of-pocket bill for child care rise, from $62 monthly in wave 1 to $115 in wave 2, likely due to women experiencing higher co-pays as their earnings climbed.

Figure 5.41 Mothers participating in child care subsidy programs by type of provider, Wave 2, California and Florida



Notes: Between-site subsidy take-up rates differ significantly for mothers using kith or kin ($p<.001$, $n=375$) but not for mothers using centers.

Local child care policies matter a lot when considering the prevalence of co-payments. These cash payments were required of few mothers in San Jose and San Francisco, just under 9% in both counties (among women using child care). But in Tampa, fully 57% of the mothers were providing a co-pay at wave 2.

One finding related to child care vouchers—called "certificates" in the federal statutes—is worth noting. We asked mothers if they received a "voucher" or "special check" that served as a payment to their child care provider and for which the provider would be reimbursed. Less than 4% of all San Francisco mothers perceived that they had received a portable chit of any kind. In contrast, 54% of the Tampa mothers said, yes, they had received a voucher to pay for care.

Accessibility of child care providers. Our wave 1 report detailed the wide variability in the number of enrollment slots available in centers (per capita) across the census tracts in which families resided.[137] We delved further into this issue of accessibility during the wave 2 maternal interview. For instance, we were curious about the proximity of their own child care providers and how they understood supply conditions within their own neighborhoods. Among mothers using child care at wave 2 ($n=375$), most reported that their providers were located close by. Almost two-thirds (63%) reported that it took less than 15 minutes to get from home to the provider. This included 22% who either lived with the provider, or the provider came to the mother's home. Selected providers in San Jose were located farther from home, on average, than in Tampa. Just over 42% of San Jose mothers reported that it took a half-hour or more to get to their caregiver, compared to 29% of the Tampa mothers. This is quite consistent with the differences in local supply found within census tracts, as detailed in Section 2.

We also asked mothers, "Do you have a child care center, Head Start, or family day care home within walking distance of your home?" This offers one indicator of women's understanding of nearby options. Differences among the county sites are large and mirror the objective center supply data that we obtained from local child care agencies in each county. In San Jose, for example, 46% of the mothers reported that they were aware of a center or family child care home (FCCH) within walking distance. This compares to 88% of the San Francisco mothers who were using a center at wave 2 and 60% of the Tampa mothers who were using a center. Again, this pattern is consistent with the actual supply of center-based enrollment slots situated in mothers' census tracts in 1998.

Duration of months with one's child care provider. The consistent and supportive presence of adults in the lives of young children makes a difference in their development and early learning. Many in the child care community have expressed concern that work-first policies may be pushing young children into unstable care arrangements. And if subsidy flows are uneven, or of short duration, this would mitigate against stable and nurturing child care settings. Yet we have known very little empirically about the longevity with which young children in poor families remain with the same provider.[138]

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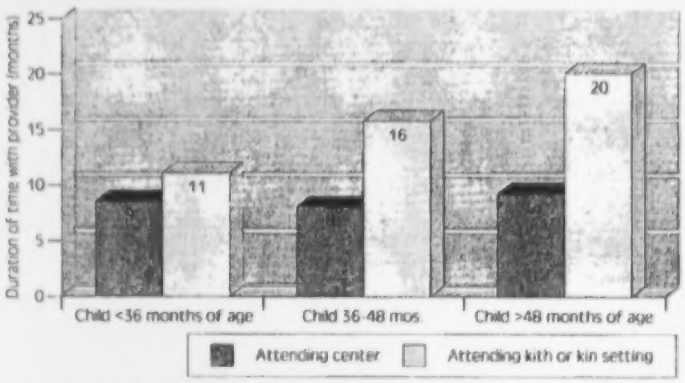
We asked mothers at wave 2 when they had begun using their current child care provider. This length of duration depends on the child's age, not only upon attributes of providers or the mother's capacity to piece together necessary financing. Keeping in mind these mediating factors, Figure 5.42 shows a fair degree of stability when it comes to current child care providers. Children, age 36-48 months and attending kith or kin settings, had been with this current provider for the 16 previous months on average, that is, the *mean* value. The *median* longevity of this provider was just 10 months; thus the mean value was pulled up by a share of mothers who had very stable kith and kin arrangements. Still focusing on this middle age-group, the mean child in a center-based program had been there for 8 months, prior to the wave 2 interview, with a median of just 6 months.

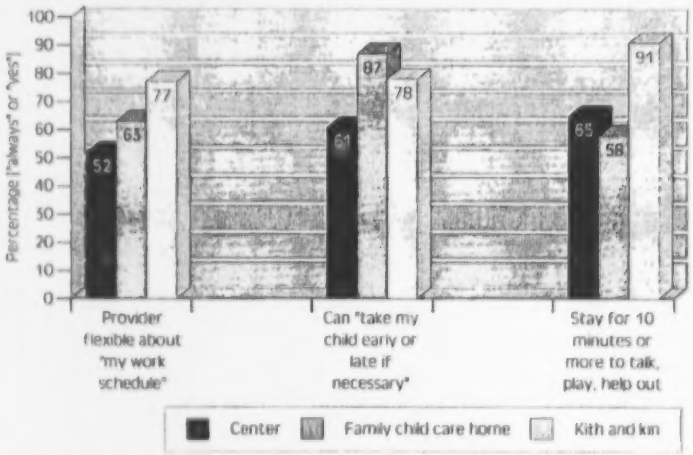
Figure 5.42 Duration of time with current child care provider, Wave 2, California and Florida



Notes. Differences between age groups in duration of time with kith or kin provider is significant ($p < .04$). Based on analysis of 349 mothers and children (n) with complete data. Excludes children attending family child care homes; small counts can not sustain reliable estimates.

Mothers' views of different types of child care providers. Our wave 1 report detailed how center-based programs displayed higher quality on indicators that are predictive of youngsters' cognitive growth and school readiness, compared to home-based arrangements. Centers, for example, employ more highly educated adults as teachers and classroom aides, organize more structured learning activities, and rely less on the television to occupy children. We report new findings below that show how more time spent in center-based programs appears to contribute to children's cognitive development and school readiness over the two years between wave 1 and wave 2 data collection.

Figure 5.43 How mothers view their child care provider, Wave 2, California and Florida



Notes. For the first indicator, related to flexibility, the percentage of mothers responding "always" is reported. Differences between type of provider are significant ($p < .001$). The second and third indicators display the percentage of mothers responding "yes". These between-provider differences are significant (at $p < .001$ and $p < .03$, respectively). Based on 365 mothers (n) with complete data.

At the same time, mothers feel quite positive about kith or kin members who provide child care, similar to the results detailed two years ago in our wave 1 report. Figure 5.43 shows that on certain organizational indicators, mothers relying on kith and kin gave these settings higher marks than mothers using centers. For example, the first set of bars indicates that 77% of mothers using kith and kin felt that their provider was "always flexible" in accommodating work schedules, compared to just 52% of the mothers using centers. Women relying on family child care homes are in between, with 63% reporting this level of flexibility. Mothers scored kith and kin arrangements higher on the quality of communications with the provider. Perhaps not surprisingly, women relying on kith and kin reported that they often stay for "10 minutes or more after dropping off their youngster to talk, play, or help out."

Despite the organizational advantages of home-based arrangements, many women report that they would prefer a center-based

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care arrangement for their child. Remember that the average focal child at wave 2 was about 4 years old; the desire for formal centers may well rise at this point, prior to their youngster entering kindergarten. Figure 5.44 illustrates the finding when we asked mothers, "If you could have any kind of child care and someone else would pay for it, what kind would it be?" About 60% of the mothers — across the three age groups of children — expressed a preference for a center slot. This rate is significantly higher than the share of women who had gained access to centers by wave 2.

Why do so many women who prefer center-based care actually use kith and kin arrangements? More work is needed to fully answer this question. But one reason is clear: many women work irregular hours and on weekends, while centers continue to operate during traditional hours. And given current levels of reimbursement for subsidized families, it's difficult for centers to open early, operate in the evenings or on weekends. In addition, we have reported on the widely varying levels of center availability across neighborhoods (Section 2).

Summary

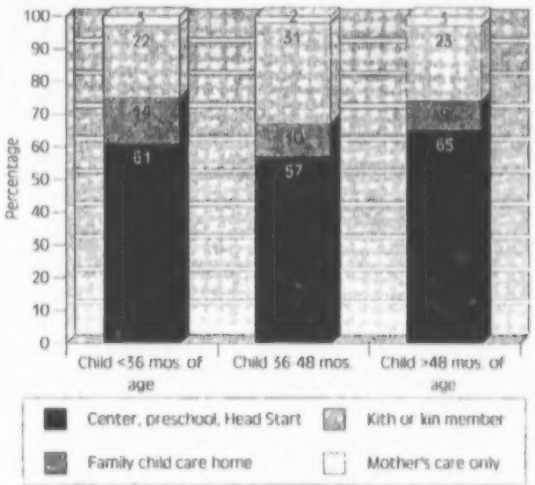
We reported above how it is difficult to detect changes—positive or negative—in the homes of young children as their mothers spent less time with them and more time on the job. What's remarkable about the child care findings is *how much change we observe in children's settings outside the home* between waves 1 and 2:

- The share of mothers *using a child care provider* for at least 10 hours per week climbed from 68% to 83% between waves 1 and 2. Children spent about 37 hours per week in child care if enrolled in centers, and 35 hours weekly if cared for by kith or kin.
- *Child care problems* still get in the way of successfully moving from welfare to work. Just under one-third (30%) of unemployed mothers reported that they had quit a job due to child care problems in the year preceding the wave 2 interview. Roughly the same proportion said that they decided not to take a new job or enter a training program because they could not find a provider with whom they were comfortable.
- The proportion of children enrolling in *child care centers or preschools* rose significantly among California families, similar to the gain we observed in Connecticut. The use of center-based programs in San Jose rose from 18% to 38% between waves 1 and 2, and climbed from 37% to 46% in San Francisco. The use of centers at wave 1 was already quite high in Florida, 69%.
- We observed *significant gains in the share of mothers who drew child care support*, rising from 61% at wave 1 to 69% at wave 2. Much of this increase is powered by a strong gain among San Jose mothers, where the subsidy take-up rate climbed from 56% to 78%. We observed a five percent increase in the take-up rate among San Francisco mothers, and Tampa held steady at about 62%.
- A *rising share of women are paying out of pocket* to help cover the cost of child care, due mainly to the rising incidence of co-payments as earnings rise for many.
- The *duration of time that children had been with their current provider varied widely*. The median child within a kith or kin arrangement had been there for 10 months, prior to the wave 2 interview. For those attending centers, the median child had been in their current arrangement for just 6 months.
- Mothers relying on *kith and kin arrangements scored these providers higher* on accessibility, flexibility in hours of availability, and the quality of communication. But when asked what their underlying preference was—if available and free —60% expressed a preference for center care.

SECTION 5F
Children's Development and School Readiness

We conducted three kinds of assessments with each focal child during our wave 2 home visits. First, we guided the child through a battery of items—contained within the Bracken

Figure 5.44 Mothers' preferred type of child care, Wave 2, California and Florida



Notes. Differences in shares preferring kith and kin are significant among the three age groups ($p < .05$). Cross-site differences are not significant (not shown here). Analysis based on 346 mothers (n).

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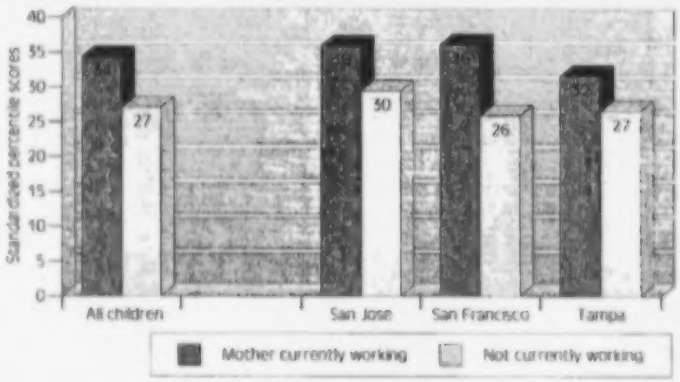
Basic Concept Scales (revised)—that gauge children's knowledge of letters, words, and written language, verbal skills, and cognitive proficiencies related to direction and position of objects, sizes and numbers, shapes, quantities and time relationships. As discussed in the Connecticut section, the Bracken has been administered to large numbers of diverse children and scores can be reported in terms of national percentile rankings. The Bracken was given in Spanish when the mother requested this option. Appendix 1 details the child assessment tools.

Second, we asked mothers a variety of questions related to their child's school readiness skills. One set of readiness items relates to the child's ability to write letters and his or her own name, draw pictures rather then scribble, and proficiency in counting. The second set is a direct assessment of the child's understanding of how children's books are constructed (location of title page, author's name, where the story begins), the child's comprehension of the story after being read out loud by the field researcher, and the ability to reason about ideas presented in the story. These instruments were drawn, respectively, from the National Household Education Survey (NHES) and the national evaluation of Head Start (FACES).[139] Norms established for low-income children involved in the FACES evaluation are reported in Appendix 2.

Third, the Child Behavior Checklist (CBCL) was administered to assess the incidence of behavioral problems possibly exhibited by the focal child, as reported by their mother. This captures the presence and severity of 50 possible behaviors or emotions that youngsters may exhibit which indicate delayed social development.[140] In addition, mothers reported on the strength of several positive behaviors that may be displayed by the child.[141]

Cognitive and language proficiencies. We begin this line of analysis by displaying mean Bracken scores for children, split by county and the mother's employment status at wave 2 (Figure 5.45). The first pair of bars show that children with employed mothers scored just above the 34th percentile on the Bracken, meaning that about two-thirds of all children nationally have stronger cognitive and language proficiencies. Focal children with jobless mothers scored lower, at the 27th percentile on average. No significant differences exist across the three sites for either subgroup. This is good news in that we prefer not to see systematic differences in children's proficiencies based simply on where they live; this would have limited our ability to generalize the findings beyond these immediate communities. Note that the Bracken percentile scores are based on the youngster's raw score across the 11 subtests and then adjusted for the child's age.

Figure 5.45 Children's cognitive and language proficiency (Bracken scores), Wave 2, California and Florida



Notes: The difference in children's Bracken scores between employed and unemployed mothers is significant for the overall sample ($p<.01$) and for San Francisco children ($p<.04$). Analysis based on 515 children (n) who successfully completed the Bracken with complete data.

Variation in children's Bracken scores are related to mothers' attributes and youngsters' exposure to center-based child care over time. We illustrate these bivariate relationships in Figure 5.46. Children whose mothers have a high school diploma, for instance, scored 9 percentile points higher on the Bracken, compared to those with mothers who did not complete high school (a gap equal to almost one-half *sd*). This difference is even wider when we sort children into groups defined by their mother's PPVT score. We divided those children whose mothers fell in the bottom quartile on the PPVT and compared them to children whose mothers were in the top-scoring PPVT quartile. We also see a significant difference in children's Bracken scores when we split between youngsters who were attending a center at either wave 1 and/or wave 2, compared to children who never attended a center.

Pre-literacy and school readiness skills. Next we turn to our assessment of the child's familiarity with storybooks and comprehension following an oral reading. In Figure 5.47 we display the oral and text-comprehension items, split by mothers' attributes and children's exposure to center-based care. Since normative data on these pre-literacy items have not yet been released, they can not be expressed as national percentile terms.[142] So, we report age-adjusted scores, standardized around a mean of zero (standardized residuals).

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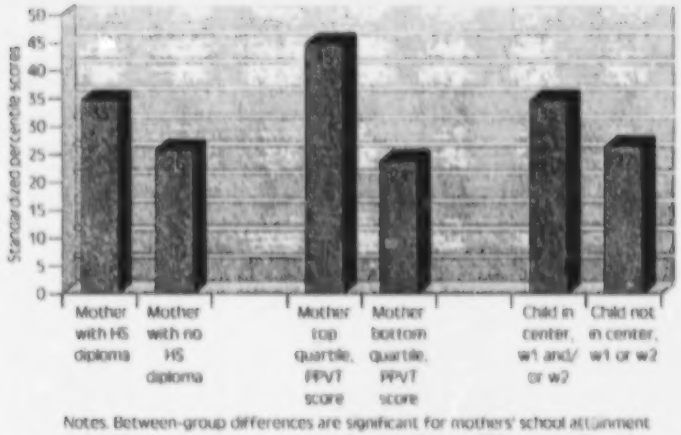
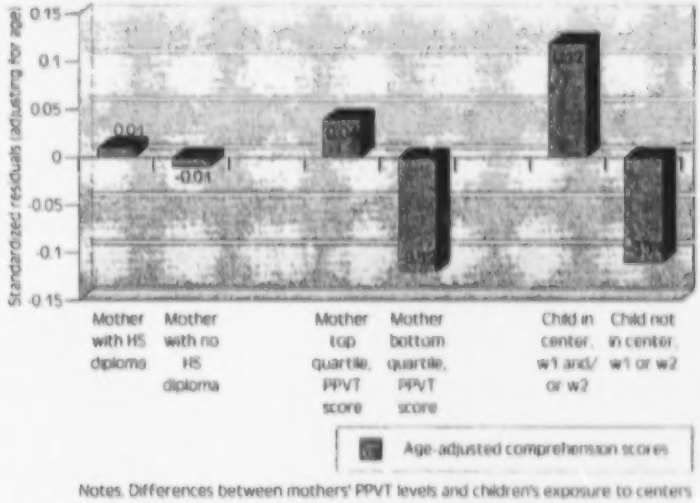
Figure 5.46 Children's cognitive and language proficiency [Bracken scores], by mother and child attributes, Wave 2, California and Florida



Notes. Between-group differences are significant for mothers' school attainment and children's exposure to center-based care (each at $p < .002$), and significant for PPVT score split ($p < .001$). In each comparison the mean differences approximate one-half sd. Analysis based on 315 children with scorable total Bracken marks.

Figure 5.47 Children's storybook comprehension scores, Wave 2, California and Florida



Notes. Differences between mothers' PPVT levels and children's exposure to centers are significant ($p < .09$ and $p < .02$, respectively), and equal to about one-quarter sd for center exposure. Analysis based on 353 children (n) with complete data.

We see that the mother's completion of high school is not related to comprehension scores, but mother's PPVT scores and the child's exposure to centers are both related. Comparing those children whose mothers scored in the top, versus bottom, quartile on the PPVT, we see that comprehension levels between these two groups differ by about one-sixth *sd*. This gap is wider for children who attended centers at either wave 1 or wave 2, compared to children who had never been enrolled in a center. When we ran this same analysis for children's basic familiarity with the storybook, the results were quite similar. Appendix 2 reports comparative data for the Head Start child population.

Children's cognitive and language growth—wave 1 to wave 2. Next we turn to questions pertaining to how much young children are learning and developing, as they aged from 2½ to 4 years-old on average. We explore how the developmental trajectories are steeper for some subgroups of children, compared to others. And we assess the extent to which maternal employment is related to children's early learning. If family policies are working as intended, we should detect gains in children's social environments *and* their learning curves over time.

From a methodological standpoint, tracking children's early growth in cognitive domains is challenging, given that different measures have been developed for different age groups, from infancy through age 4 or 5. For example, at wave 1 we relied heavily on the Communicative Development Inventory (CDI), as discussed in Section 3, since it is calibrated for infants and young toddlers. This measure focuses on word recognition and usage, variably complex forms of communications (such as, gesturing and more complex verbal sentences articulated by toddlers), as well as playing interactive games with adults (e.g., paddy-cake, peek-a-boo, singing together are discrete items on the CDI). Then, as children turn 3 or 4 years-old, more complex forms of assessments can be used, including the Bracken and school readiness inventories that assess a variety of cognitive domains, from language and numbers to familiarity with storybooks.

The CDI measures employed at wave 1 were boiled down into alternative composites that displayed internal consistency, stemming from four separate subscales. The first two pertained to focal children, age 12-23 months old at wave 1, and gauged their word recognition and usage, along with the complexity of verbal interaction and games played with the mother that

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require talk. The third and fourth subscales were used at wave 1 for the older cohort, youngsters age 23-42 months. These included a more challenging version of the word usage subscale and the complexity of verbally expressed sentences. Components of each pair of subscales were correlated to each other, yielding moderate reliability coefficients (Cronbach's alphas) of .66 and .65, respectively.[143]

The wave 2 child assessments included additional measures and were administered directly with children in their homes. At wave 1, assessments were conducted via the maternal interview, for mother reported data, and at the youngster's child care setting for direct assessments.[144] At wave 2 the Bracken provided scores on a basic "school readiness composite" and on five more complex subscales. For our sample, however, these subtests were highly inter-correlated. Combining the age-adjusted subtests yielded a high reliability coefficient of .88. Thus we will focus on the total Bracken score, expressed as mean percentile scores for subgroups of children and always age-adjusted.

Let's look at children's cognitive growth trajectories—between wave 1 and wave 2—for different subgroups. We first plot wave 1 cognitive-language proficiency (CDI) scores, splitting the children into two groups: those with mothers in the top PPVT quartile and those in the bottom quartile (Figure 5.48, panel A). This analysis focuses on how children's early development in cognitive and language domains may relate to their mothers' own basic proficiencies. The square at wave 1 indicates that children scored .16 *sd above* the mean level when their mothers placed in the top half of the PPVT distribution. The circle just below indicates that children scored at .19 *sd below* the mean when their mothers were in the bottom fourth of the PPVT distribution. Even when children were just 2½ years-old, on average, at wave 1 we can see that mothers' own cognitive proficiencies make a difference in their children's early learning.

The upwardly sloping line, marked by the two squares, indicates that these children developed more rapidly, moving to .36 *sd* above the mean when their cognitive skills were assessed at wave 2 (based on standardized Bracken scores). And children with mothers in the bottom quartile of the PPVT distribution, marked by the circles, fell further below the first group, declining to .30 *sd* below the mean. The gap between the two groups has widened to two-thirds *sd* by wave 2.

Panel B splits children into those who were attending a child care center at wave 1 and/or wave 2, compared to those children who never attended a center. We again see sharply differing growth trajectories. Little difference in children's cognitive-language proficiency scores are apparent at wave 1: those in centers scored just .08 *sd* above the mean, and those in home settings were .05 *sd* below the mean. But by wave 2, those children enrolled in centers scored almost one-fifth *sd* above the mean, and those with no center exposure scored about one-sixth below the mean. The cognitive-skills gap equaled one-third *sd* by wave 2.

We mentioned that a portion of the older children found the CDI cognitive-language measure to be quite easy at wave 1, resulting in a modest ceiling effect.[145] This could distort the present growth analysis, given that variance was somewhat constrained at wave 1 but not at wave 2 where children's Bracken scores were normally distributed. Thus we tested whether growth could be observed for particular segments of the distribution, that is, across a certain range of wave 1 test scores.

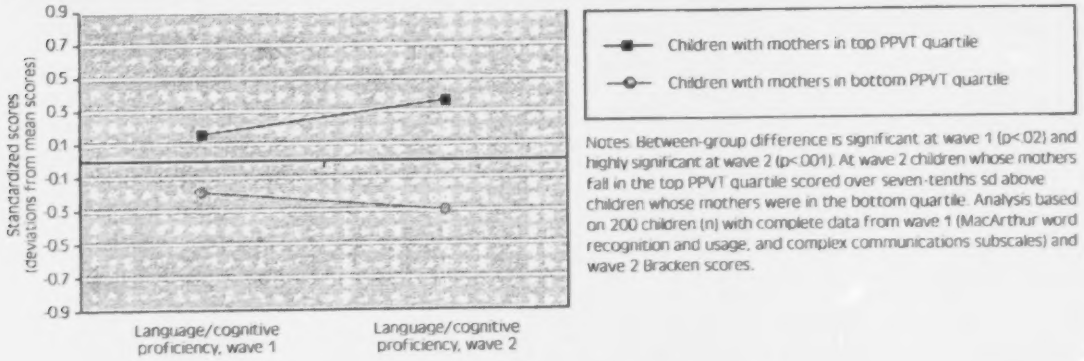
Figure 5.48C, for instance, splits children between the top and bottom halves of the distribution of wave 1 CDI scores, then plots growth through wave 2. The top panel reveals that the relationship between center attendance and cognitive growth is centered on those in the *bottom half* of the wave 1 distribution. At wave 1, those children in the bottom half and who attended centers moved from .77 *sd* below the mean to .01 *sd* above the mean, moving upward almost four-fifths *sd* between wave 1 and 2. Children not attending centers began at .83 *sd* below the mean at wave 1, then moved toward the mean but at a significantly lower rate, scoring at .48 *sd* below the mean at wave 2 (significantly below those who attended centers, $p<.001$). The gap that opened up between center attendees and non-attendees, at wave 2, equals one-half *sd*.

The bottom panel shows no discernible center effect for children who started in the upper half of the cognitive-language distribution at wave 1. Both center attendees and non-attendees started high on the CDI at wave 1, then moved toward the mean score at wave 2. Both groups display typical regression to the mean as they grow older.

We ran the identical analysis for the two maternal-PPVT groups and found effects for *both* halves of the wave 1 distribution. That is, children with mothers in the top half of the PPVT distribution showed significantly higher growth trajectories whether the youngsters began in the bottom half of the wave 1 distribution (their trajectory is one-third *sd* higher at $p<.06$), or in the top half of the distribution (over four-fifths *sd* higher, $p<.001$). The latter finding suggests that the ceiling effect in CDI scores at wave 1 was not strong enough to distort growth trajectories.

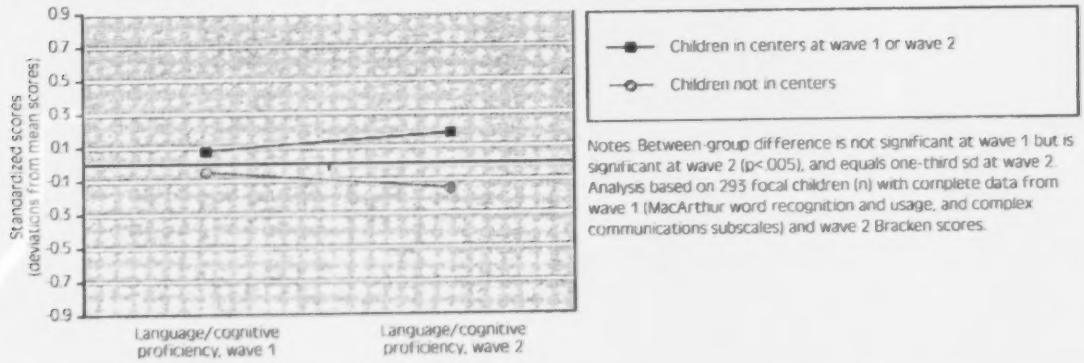
At this point in the analysis, we must emphasize that no causal claim can be made: other maternal attributes or home factors, thus far unobserved, may be driving the mother's propensity to select a center-based program *and* the child's cognitive growth. The hypothesis that experience in center-based programs drives early learning is simply one possible explanation. This is

Figure 5.48 - Panel A Children's cognitive development, Wave 1 to Wave 2, by mothers' PPVT scores, California and Florida



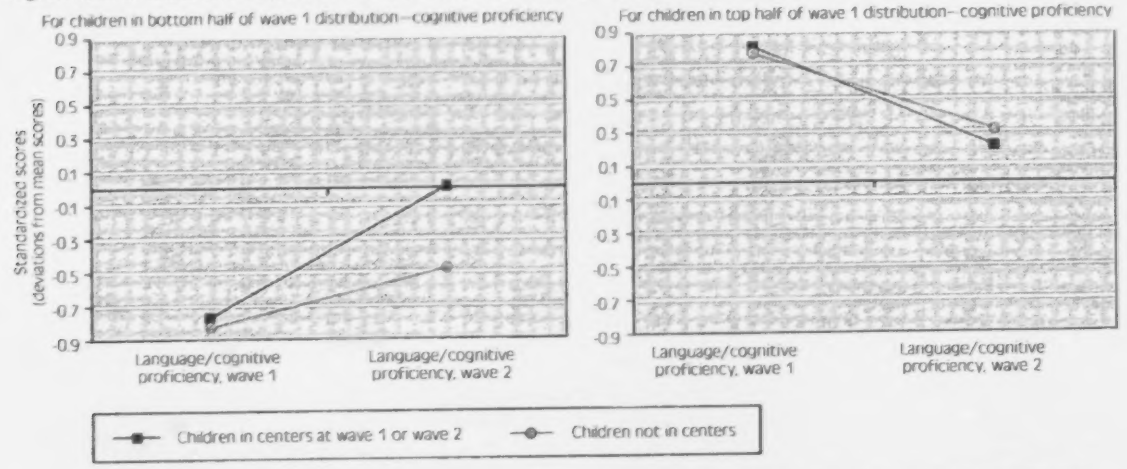
Notes: Between-group difference is significant at wave 1 ($p<.02$) and highly significant at wave 2 ($p<.001$). At wave 2 children whose mothers fall in the top PPVT quartile scored over seven-tenths sd above children whose mothers were in the bottom quartile. Analysis based on 200 children (n) with complete data from wave 1 (MacArthur word recognition and usage, and complex communications subscales) and wave 2 Bracken scores.

Figure 5.48 - Panel B Children's cognitive development, Wave 1 to Wave 2, by exposure to child care centers, California and Florida



Notes: Between-group difference is not significant at wave 1 but is significant at wave 2 ($p<.005$), and equals one-third sd at wave 2. Analysis based on 293 focal children (n) with complete data from wave 1 (MacArthur word recognition and usage, and complex communications subscales) and wave 2 Bracken scores.

Figure 5.48 C Children's cognitive development by exposure to child care centers split by wave 1 proficiency



Between-group differences for children in a center at wave 1 and/or wave 2, compared to those in homes, are not significantly different at wave 1. Gains at wave 2 are highly significant for those children in the bottom half of the wave 1 distribution (top curve in first panel, $p<.001$). Analysis based on 293 matched children with complete data.

why multivariate models are important in testing whether these kinds of associations remain significant, even after taking into account a variety of other possible causes. Let's turn to two initial estimation models.

Table 5.1 presents two multivariate models, estimating children's Bracken scores and their familiarity with children's storybooks (the one subscale from the FACES assessment).[146] This starting model tests the extent to which certain factors, such as parenting practices or enrollment in child care centers, remain significant in predicting wave 2 cognitive proficiencies after taking into account maternal attributes and other predictors. And by controlling on cognitive proficiency at wave 1, we also isolate on the growth observed between waves. These multivariate models get us closer to substantiating causal claims, but such arguments still must be approached with caution. If it were feasible to randomly assign children to centers or another form of care, or randomly assign children to homes with stronger reading practices, then we would have a true experiment. Given the difficulties in running these kinds of experiments, longitudinal data on child development and multivariate estimation offer one feasible method for strengthening causal inferences.

In the first model, where we are predicting children's Bracken scores at wave 2, we see that cognitive proficiency at wave 1 is significantly related. It's reassuring that our wave 1 measures, despite the children being young, display this level of predictive validity.[147] Note that age is entered as a conservative control: Bracken scores already are adjusted for the child's age. The mother's PPVT score is positively related to the child's Bracken score as we saw above in the descriptive displays.[148] African-American children scored over 12 percentile points lower on the Bracken, compared to non-Latino white children. On the other hand, children who gained access to a child care center scored over 7 percentile points higher than those who remained at home with their mother or entered home-based care arrangements.

Table 5.1 Estimating Children's Bracken Scores and Familiarity with Storybooks
(unstandardized coefficients and standard errors reported)

	Child outcomes at Wave 2: Bracken percentile score	Storybook familiarity score
Wave 1 cognitive proficiency	7.83*** (1.81)	.13* (.06)
Child's age	.04 (0.20)	.06*** (.007)
Mother's PPVT score	.18* (0.08)	.003 (.003)
Home language, English	6.55 (7.57)	.36 (.27)
Mother's ethnicity		
Asian	2.87 (12.35)	.77 (.43)
Black	-12.70** (4.35)	-.30* (.16)
Latina	-5.74 (4.58)	.06 (.17)
Number of children's storybooks in household	1.44 (1.78)	.20** (.07)
Attended child care center, wave 1 and/or wave 2	7.43* (3.41)	.16 (.13)
Full equation: Intercept	17.7	1.69
F-value (*df*)	6.47 (9,198)***	14.56(9,218)**
Adjusted r^2	.19	.35

*p<.07, *p<.05, **p<.01, ***p<.001

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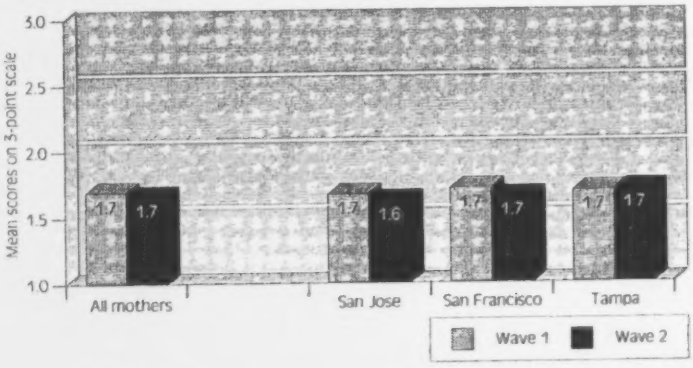
The second model includes the same explanatory factors and estimates the child's familiarity with the structure of storybooks. We see that child age is highly significant, since the FACES scores are not age-adjusted. Black children scored significantly lower, compared to non-Latino whites. And the number of children's book in the household is highly related to their familiarity with storybooks. Interestingly, the mother's PPVT score is not related to this school readiness indicator, after taking into account the other factors.

We also can assess the relationship between cognitive growth and center *quality,* and have done so in a forthcoming paper. For example, we find stronger cognitive gains for children attending centers in Santa Clara County. Our wave 1 observations revealed that, on average, center quality was highest in that site, compared to the other four study sites. This is consistent with other work showing that pro-developmental activities and educational levels of caregivers are higher in centers selected by low-income parents, compared to home-based settings.[149]

Figure 5.49 Children's social and behavioral problems (CBCL) scores, Wave 1 and Wave 2, California and Florida



Notes The modest decline in children's social and behavioral problems is marginally significant ($p<.06$). This difference disappears after controlling for child's age. Differences among county sites are not significant. Analysis based on 261 children (n) with complete CBCL data at both waves.

Children's behavioral problems and social development. The third set of child outcomes that we assessed relates to growth in social development, including mother-reported behavioral problems and positive social behaviors displayed by the child. We rely on the Child Behavior Checklist (CBCL), including items that were administered at both wave 1 and wave 2. We report average behavior-problem scores for both waves in Figure 5.49. We do observe a marginally significant decline in overall social problems between waves ($p<.06$). But once we control for the influence of children's age—and the fact that they are maturing between waves—this difference disappears. The good news is that mothers report fewer behavior problems. The not-so-interesting news is that this improvement may not be related to any change in the mother's life or inside her household, but stems mainly from the child's maturation. Nor did we detect any association between exposure to center-based programs and children's propensity to display social or emotional problems.[150]

Children's incidence of behavioral problems is related to maternal attributes and certain social factors. In Figure 5.50, for example, we display the child aggressiveness subscales from the CBCL for different groups. The first pair of bars shows that children whose mothers scored in the top quartile on the PPVT have a much lower incidence of aggressive behavior, more than two *sd*'s below children whose mothers scored in the bottom quartile on the PPVT. When we ran the same analysis, splitting children between those whose mothers completed or did not complete high school, the pattern was similar: youngsters of better educated mothers scored 1.3 *sd*'s below those with less educated mothers on the aggressiveness composite. Attendance at center-based programs is not significantly related to children's aggressiveness—or any other subscales of the CBCL instrument.

Children of currently employed mothers display *less* aggressiveness behaviors than those with unemployed mothers. Again, this is a simple association; we can not make a causal inference. Still, it is good news that rising rates of maternal employment are not associated with any change in the incidence of behavioral problems, on average.

Summary

The shape of different children's developmental trajectories varied significantly between age 2½ and 4. We could detect *no direct effects of the mother's employment status,* over the wave 1 to wave 2 period, on the steepness of these early-learning curves. On the other hand, youngsters who spent more time in *center-based child care*—spurred in part by their mothers' search for a job—did display higher rates of cognitive growth. Exposure to formal centers, however, was not consistently related to rates of social development.

This analysis yielded these additional findings:

- As early as age 4, on average, these children have fallen well behind other youngsters in terms of basic cognitive and language proficiencies. The average focal child *scored at the*

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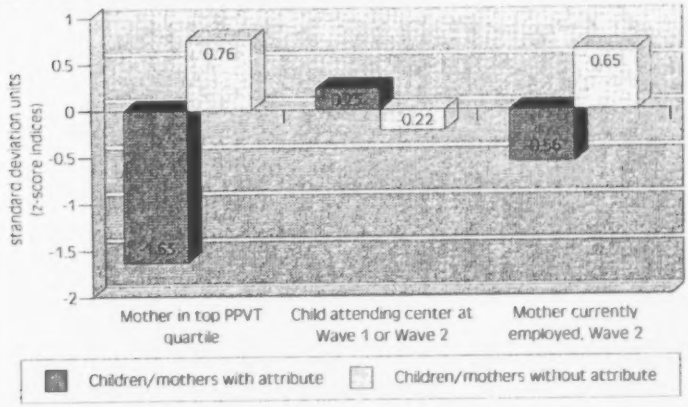
Figure 5.50 Children's display of aggressive social behaviors, Wave 2, California and Florida



Notes. Lower incidence of children's aggressive behavior is significant when mother scored in top PPVT quartile compared to children with mothers in the bottom quartile ($p < .02$), and this difference equals over two sd. The gap for children with mothers with and without a high school diploma is 1.3 sd (not shown here). Difference by enrollment in center-based care is not significant. But lower incidence for children with employed mothers is marginally significant ($p < .06$).

34th percentile, meaning that two-thirds of all children nationwide score higher on the Bracken assessment.

- Children with employed mothers displayed higher levels of cognitive proficiency and a lower incidence of behavioral problems. But *this relationship with maternal employment disappears* after statistically taking into account the mother's education level and her own cognitive proficiency (PPVT score). The good news is that we found no evidence that maternal employment was a negative drag on children's early learning or their social development.
- The rate at which young children's cognitive skills develop is *shaped by long-running factors* linked to the mother's school attainment, cognitive proficiency, and parenting practices inside the home, as opposed to any direct effects stemming from episodes with low-wage employment. Additional analyses will test to see whether multiple indicators of broader economic well-being (advanced by employment or total income) are predictive of children's developmental trajectories.
- Children with employed mothers display *fewer behavioral problems*, such as aggressiveness with other children. But again, no main effect from employment remains after taking into account the mother's attributes and parenting practices.

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ENDNOTES

[1] This Act replaced the old AFDC program with the new TANF cash aid program, and included a variety of other reforms pertaining to the consolidation of child care programs into one block grant, significant changes in food stamp and Medicaid eligibility, and other reforms.

[2] Few families participated in mandatory employment components of the AFDC program under the 1988 federal JOBS reforms. For example, the share of AFDC families participating in our three study states—California, Connecticut, and Florida—equaled just 8%, 12%, and 6% as late as 1994. Even smaller percentages of women with children under age 5 were required to work. See: O'Neill, D., & O'Neill, J. (1997). *Lessons for Welfare Reform: An Analysis of AFDC Caseload and Past Welfare-to-Work Programs*. Kalamazoo, MI: Upjohn Institute for Employment Research. A few early state experiments required mothers with children, age 3-5, to work, but this was atypical. Most did not call-up mothers into mandatory work programs until their child started elementary school. See: Friedlander, D., & Burtless, G. (1995). *Five Years After: The Long-term Effects of Welfare-to-Work Programs*. New York: Russell Sage Foundation. Note that all citations, after the initial cite, will include just author name and title of article.

[3] White House (2002). President announces welfare reform agenda. February 26 [www.whitehouse. gov/news/releases].

[4] Toner, R. (2002). Welfare chief is hoping to promote marriage. *New York Times*, February 19, p.A16.

[5] Our Connecticut work was conducted in parallel to an evaluation of the Jobs First program carried out by the Manpower Demonstration Research Corporation (MDRC) on behalf of the state Department of Social Services. See: Bloom, D. et al. (2002). *Jobs First: Final Report on Connecticut's Welfare Reform Initiative*. New York: MDRC.

[6] For a complete listing of published papers and manuscripts see the inside back cover or explore the project website at www.pace.berkeley.edu.

[7] The family sample brought forward equaled 909 families, given two sources of shrinkage that reduced the sample from the original 948. First, the Connecticut welfare department requested that 18 cases be dropped, which included women who had recently gone through a precursor to the Jobs First Program or proved to be child-only cases, where the cash grant went to the youngster not the parent. Second, we set aside 21 Vietnamese-American women at the San Jose site, given the cost in locating and gaining their ongoing cooperation.

[8] This site-specific finding is detailed in our wave 1 technical report: Fuller, B., Kagan, S.L., et al. (2000). *Remember the Children*.

[9] Economist Orley Ashenfelter documented this initial rebound for welfare participants who take part in job training programs. Ashenfelter, O. (1978). Estimating the effect of training programs on earnings. *Review of Economics and Statistics*, 47-57.

[10] Again, a portion of this gain is attributable to the fact that earnings for many women may have been atypically low as they entered the welfare system. On the other hand, many long-term welfare recipients and those with little prior work experience were able to raise their net income. And the upward trend applies to earnings and income in the year prior to each interview, conducted in 1998 and again in 2000, not simply to their current situations.

[11] This relationship is of marginal statistical significance ($p<.10$).

[12] Seven percent of the sample indicated that they were legally married, but not living with their spouse, at wave 1. Thus they were retained in the maternal sample.

[13] These estimates, as with earlier analyses, take into account the aging of children between waves 1 and 2.

[14] In Connecticut, we detected no program effect related to Jobs First participation on patterns of TV viewing by children.

[15] The child's and the mother's assessments were given in English or Spanish, depending on the mother's preference.

[16] Section 5 details how we gauge children's time in center-based programs at wave 1 and wave 2.

[17] When mothers reported more than one child in this age range, we selected the oldest as the focal child.

[18] We earlier described local policy and implementation changes in the child care arena, focusing on California post-1996: Carroll, J. (2001). How to pay for child care? Local innovations help working families. Berkeley and New Haven: Growing Up in Poverty Project (policy brief).

[19] The child poverty rate in Connecticut had earlier creeped upward, rising from 3.5% in 1988 to 14.8% in 1996. This indicates how sensitive child poverty rates can be to overall economic conditions.

[20] MaCurdy, T., Mancuso, D., & O'Brien-Strain, M. (2002). Does California's welfare policy explain the slower decline of its caseload? San Francisco: Public Policy Institute of California.

[21] For review of changes in the economic and policy environments, see: Blank, R., & Schmidt, L. (2001). Work, wages, and welfare. Pp. 70-102 in *The New World of Welfare*, edited by R.Blank and R.Haskins. Washington DC: Brookings Institution Press. An earlier analysis attempts to apportion shares of variance in caseload declines among the states to policy change and economic growth: Council of Economic Advisors (1999). The effects of welfare policy and the economic expansion on welfare caseloads: An update. Washington DC: The White House.

[22] Acs, G., & Loprest, P. with Roberts, T. (2001). Final synthesis of findings from ASPE's leaver grants. Washington, DC: Urban Institute.

[23] Michalopoulos, C., & Berlin, G. (2001). Financial work incentives for low-wage workers. Pp. 270-290 in *The New World of Welfare*.

[24] The average share of current welfare recipients who are working has risen from 11% in 1996 to 33% in 1999, according to the federal Administration for Children and Families.

[25] Blank, R., & Schmidt, L. (2001). Work, wages, and welfare. Pp. 70-102 in *The New World of Welfare*.

[26] U.S. House of Representatives (2000). *Green Book: Programs within the Jurisdiction of the Committee on Ways and Means*. Washington DC: Government Printing Office.

[27] Schumacher, R., Greenberg, M., & Duffy, J. (2001). The impact of TANF funding on state child care subsidy programs.

Washington DC: Center for Law and Social Policy. Besharov, D., & Samari, N. (2001). Child care after welfare reform. Pp. 461-481 in *The New World of Welfare*.

[28] Lieberman, C., & Mancuso, D. (2001). Are California's leavers staying off welfare? Burlingame, CA: SPHERE Institute (California Policy Review series, vol. 1, no. 2).

[29] This analysis appears in: Primus, W. (2001). Comment on "Effects of welfare reform on family income and poverty," by Ron Haskins. Pp. 130-136 in *The New World of Welfare*.

[30] MDRC's overall evaluation of the Connecticut Jobs First program revealed that family cases were closed for about one-third of the program's participants during the four-year follow-up period studied. Of all clients who hit the 21-month time limit, just over half were granted extensions, those who were making good faith efforts to find a job. See: Bloom, D. et al. (2002). *Jobs First: Final Report on Connecticut's Welfare Reform Initiative*.

[31] Detailed in Fuller, B., Kagan, S.L. et al. (2000). *Remember the Children*.

[32] Collins, A., Layzer, J., Kreader, J.L., Werner, A., & Glantz, F. (2000). National study of child care for low-income families: State and community substudy interim report. Cambridge, MA: Abt Associates.

[33] Meyers, M. et al. (2001). The dynamics of child care subsidy use: A collaborative study of five states. Paper presented at the NICHD/Cornell conference on welfare reform and children, Washington DC (May).

[34] Fuller, B., Kagan, S.L. et al. (2000). *Remember the Children*.

[35] The degree to which these availability conditions are related to the likelihood that TANF mothers select a center-based program, relative to individual-level attributes of mother and child, is examined in a recent working paper: Fuller, B., Gascue, L., Kagan, S.L. et al. (2001). Explaining family demand for early education: Ethnicity, social support, and neighborhood organizations. Berkeley: University of California, Growing Up in Poverty Project.

[36] This includes federal block grant funding that moves through Sacramento, and excludes federal Head Start funding which does not. Thanks go to Lynn Podesta and Cheryl Black, state Department of Finance, for sharing their budget worksheets. Support for voucher programs has risen almost seven-fold between FY97 and FY02, compared to an 84% increase in center-based programs. This analysis was conducted by the Child Development Division, state Department of Education, and includes funding moving through the California Department of Social Services as well.

[37] Hirshberg, D. (forthcoming). Initial findings from the CDSS-PACE child care planning project. Berkeley and Sacramento: University of California and the California Department of Social Services.

[38] Carroll, J. (2001). How to pay for child care? Local innovations help working families.

[39] These implementation issues are detailed in chapter 2 of the MDRC evaluation: Bloom, D. et al. (2001). *Jobs First: Final Report on Connecticut's Welfare Reform Initiative*.

[40] A profile of Connecticut's child care, early education, and health care services appears in: Judge, A. (2001). *Children in the States, 2001*. Washington DC: Children's Defense Fund.

[41] This excluded two-parent families entering new welfare programs and cases where the cash aid was directed at the child, not the family unit (so called "child-only cases").

[42] Response rates at wave 1 ranged from 88% in the California sites to 93% in Florida.

[43] In Connecticut, after the initial sample was drawn we learned that several clients were in fact child-only cases, where the mother was not receiving support. A second small slice included women who had participated in an earlier welfare-to-work program. These two sets of Connecticut cases equaled 18 families.

[44] See section 3, Fuller, B., Kagan, S.L. et al. (2000). *Remember the Children*.

[45] The only exception was that administrative data for the Connecticut families stretched into mid-2001, as detailed in Section 4.

[46] Our analysis of how families' lives changed between wave 1 and wave 2 always focuses on the matched sample of families with complete data at both points in time. So, the loss of Vietnamese-American families does not distort the longitudinal analysis.

[47] Research papers stemming from the wave 1 data are listed inside the back cover.

[48] Earlier at wave 1 we relied on the MacArthur Communicative Development Inventory (CDI) to gauge children's understanding of words, usage of a narrow or wide vocabulary, and more complex ways of gesturing or verbally articulating sentences. We also developed a picture version of the CDI, involving representations of various objects that illustrate various words. This measure was re-administered at wave 2, although it's validity is limited to younger children, under age 2½ or 3 years-old.

[49] Appreciation is expressed to Gary Resnick at Westat Inc. for sharing and informing us about the use of this measure in field studies. It was originally developed for the Head Start Family and Child Experiences Survey (FACES). Thanks also go to the Administration for Children, Youth, and Families of the Health and Human Services Department for allowing us to reprint the subscales.

[50] For a summary of these profiles, see "Welfare Caseload Changes, 1997-1999," in the Urban Institute bulletin: *New Federalism: Policy Research and Resources*, November 2001.

[51] For reviews of quantitative and qualitative evidence on the diverse (home and child care) environments of children in low-income households see: NICHD Early Child Care Research Network. (2000). The relation of child care to cognitive and language development. *Child Development*, 71, 960-980. Shonkoff, J. & Phillips, D. (eds. 2000). *From Neurons to Neighborhoods*. Washington DC: National Academy Press. Holloway, S.D., Fuller, B., Rambaud, M., & Eggers-Pierola, C. 1997. *Through My Own Eyes: Single Mothers and the Cultures of Poverty*. Cambridge, MA: Harvard University Press.

[52] Bloom, D. et al. (2002). *Jobs First: Final Report on Connecticut's Welfare Reform Initiative*.

[53] In Connecticut, work experience is gauged in the year prior to entering the Jobs First experiment and being randomly assigned to the program or to the control group. In California and Florida, work experience was reported for year prior to the wave 1 interview, corresponding closely to when the mother entered these states' welfare-to-work programs.

[54] The MDRC evaluation (Bloom et al., 2002) used employment in the year prior to random assignment as one of three criteria used to determine the "most disadvantaged" subgroup. Also included was whether the participant had received cash aid for at least 22 of 24 months prior to random assignment, and whether the mother received a high school diploma or GED. This yielded a subgroup made-up of 13% of the full Jobs First sample. Such a narrow slice could not be meaningful analyzed if applied to our smaller sample of mothers with preschool-age children.

[55] Mean maternal depression scores were slightly higher for women with recent work experience, but this difference did not reach statistical significance. The CES-D (Center for Epidemiologic Studies Depression Inventory) has been used in clinical and field studies with large samples. For review of its psychometric properties, see McDowell, I. & Newell, C. 1996. *Measuring Health: A Guide to Rating Scales and Questionnaires*, second edition. New York: Oxford University Press. Radloff, L. & Locke, B. 1986. The community mental health assessment survey and the CES-D scale. In Weissman, M., Myers, J., & Ross, C. (eds.) *Community Surveys of Psychiatric Disorders*. New Brunswick, NJ: Rutgers University Press.

[56] The GUP/Yale home visits were completed within eight months of the wave 2 phone interviews. In addition to our home visit, the MDRC field team conducted a second home visit that covered a variety of other topics, a portion of which are covered in this section.

[57] Bloom, D. et al. (2002). *Jobs First: Final Report on Connecticut's Welfare Reform Initiative*.

[58] Mean differences or regression coefficients that are "statistically significant" display significance at $p<.05$ or stronger. Differences labeled "marginally significant" are at $p<.10$.

[59] Again, the criterion is any paid employment for any month within the 12 months prior to random assignment, as detailed in Section 3.

[60] Bloom, D. et al. (2002). *Jobs First: Final Report on Connecticut's Welfare Reform Initiative*.

[61] We have not yet analyzed what proportion of women remained on cash aid for 21 consecutive months, versus those who went off aid for some months, then cycled back on.

[62] Not all women drew TANF cash aid for 21 uninterrupted months.

[63] When we focus just on women who reported their earnings in hourly terms, without prompts that clarify whether they are citing daily, weekly, or monthly wages, the estimates shift slightly: $8.99 hourly among Jobs First participants and $8.22 hourly for the control group.

[64] Nord, M., Jamison, K., & Bickel, G. 1999. Prevalence of food insecurity and hunger by state, 1996-1998. Alexandria, VA: United States Department of Agriculture. Special thanks to Gary Bickel and Mark Nord for their generous assistance with these measures.

[65] Fuller, B., Caspary, G., Kagan, S.L., et al. (2001). Does maternal employment influence poor children's social development? (working paper).

[66] The wider MDRC evaluation of Jobs First includes a substudy of a small sample of participants who hit their limit, then went off aid or obtained an exemption from being cut off. Bloom et al. (2002). *Jobs First: Final Report on Connecticut's Welfare Reform Initiative*.

[67] Administrative data were available for 149 of the Jobs First group for this analysis, 94% of the original client sample.

[68] We split the sample at less than 20 months, assuming that some women may have hit their time limit at this point and administrative records show 20 months of cash aid after random assignment, not precisely 21 months.

[69] Our original screening questions aimed to exclude women who were living with a spouse and thus two-parent TANF cases. But some mothers entered the sample who were legally married but did not co-habit with their husband. A small number later in the maternal interview indicated that their spouse was co-resident most evenings in the house.

[70] A related question on "domestic partners," asked at wave 2, suggests that we may be picking up some relationships which are not marriages per se. But this is likely a better gauge of co-habitation.

[71] In the maternal interview we asked about social support related to the task of child rearing, including friends or kin members who bring gifts to the child; availability of someone who will listen when the mother is stressed, can provide a ride, or can take the child for an hour when the mother needs a break; and frequency of seeing relatives.

[72] These measures are drawn from the "collective efficacy" scales developed by Tony Earls, Steve Raudenbush, and Rob Sampson for their study of Chicago neighborhoods. See: Sampson, R., Morenoff, J., & Earls, F. (1999). Beyond social capital: Spatial dynamics of collective efficacy for children. *American Journal of Sociology*, 64, 633-660.

[73] See reviews of related empirical literature in chapters 9 and 11, Shonkoff, J., & Phillips, D. (2001). *Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington DC: National Academy Press.

[74] We summarized highlights of the policy debate and bipartisan consensus around the anti-poverty goals embedded in the 1996 reforms in Fuller, Kagan et al. (2001). *Remember the Children*.

[75] For reviews of measurement properties and normative levels on larger populations of parents, see: Bradley, R. (1993). Children's home environments, health, behavior, and intervention efforts: A review using the HOME inventory as a marker measure. *Genetic, Social and General Psychology Monographs*, 119, 439-490. McGroder, S. (2000). Parenting among low-income African American single mothers with preschool-age children: Patterns, predictors, and developmental correlates. *Child Development*, 71, 752-771.

[76] Loeb, S., Fuller, B., Kagan, S.L., Carrol, B. (2002). How welfare reform affects the lives of preschool-age children: Experimental findings from Connecticut. Stanford: Growing Up in Poverty working paper. See inside back cover for related project papers.

[77] One additional practice displayed a marginally significant difference: whether the mother *or* another adult had taken the focal child to a library or museum within the month prior to the wave 2 interview. The overall E-C difference was marginally significant, favoring the Jobs First children—57% reported that their child had been to a library or museum within the prior month, compared to 47% for the control group ($p<.10$). This difference was driven primarily by the difference for mothers with recent work experience: 61% of these Jobs First participants, compared to 43% of the corresponding segment of the control group reported a visit. The problem is that we don't know whether the average mother's behavior changed, or whether another adult took the focal child to the library to pass the time, given that the mother was at work. In either case, more research is required. As we theorize about how mothers' time is related to parenting practices, it may be useful to see time inside the home (opportunities to read together) may differ from time available for outside activities (such as library visits), especially in light of the large share of mothers who now are working irregular shifts.

[78] Fuller, B., Kagan, S.L., et al. (2000). *Remember the Children*. For details on our observational study within California child care settings, see: Fuller, B., Chang, Y., Suzuki, S., & Kagan, S.L. (2001). Child-care aid and quality for California families. Berkeley: University of California, Growing Up in Poverty/PACE working paper 01-2.

[79] This composite index was internally reliable at a moderate level, with a Cronbach's alpha equal to .59. No E-C differences were detectable for any of the four individual items.

[80] Dunn, L., & Dunn, L. (1997). Peabody Picture Vocabulary Test, Third Edition. Circle Pines, MN: American Guidance Service.

[81] The battery of child health questions were asked within the MDRC home visit and included just 90 of the children participating in the Growing Up in Poverty (GUP) study. Maternal health items were included in the GUP home visit.

[82] Gelfand, D., & Teti, D. (1990). The effects of maternal depression on children. *Clinical Psychology Review*, 10, 329-353. McLoyd, V., Jayaratne, T., Ceballo, R., & Borquez, J. (1994). Unemployment and work interruption among African American single mothers: Effects on parenting and adolescent socioemotional functioning. *Child Development*, 65, 562-589. The CES-D (Center for Epidemiologic Studies Depression Inventory) has been used widely in clinical and field studies with large populations of adults. See citations related to measurement properties in Section 3

[83] For the Jobs First group (among women with no prior work experience), 36% indicated their employer offered a health insurance plan, compared to 35% for this portion of the control group.

[84] The E-C difference in maternal employment rates shown in Figure 4.1 applies to the 12th quarter.

[85] Wave 1 child care selection patterns are detailed in Fuller, B., Kagan, S.L., et al. (2000). *Remember the Children*.

[86] Children with mothers who had recent work experience, whether in the Jobs First or the control group, spend more hours in child care at wave 2 (35 hours weekly), compared to mothers with no recent work experience (31 hours; $p<.03$). This is likely due to the greater likelihood of current employment at wave 2 for the former group.

[87] The 13% center selection rate at wave 1 compared with 29% of the sampled California families using centers, and 70% of the Florida mothers selecting center-based programs. This variation is remarkable, given that the average age of focal children was almost equal among the three state samples.

[88] In our wave 1 technical report, *Remember the Children*, we originally reported a 13% take up figure, but this was based on all mothers in the Connecticut sample, including those who were not currently using child care.

[89] For national data from the NHES, see: Zill, N., Collins, M., West, J., & Hauksen, E. (1995). Approaching Kindergarten: A Look at Preschools in the United States. Washington DC: National Center for Educational Statistics (NCES 95-280). The direct assessment of story book familiarity and comprehension is from the Head Start Family and Child Experience Survey (FACES), story and print concepts module, developed by Gary Resnick at Westat Inc., Rockville, Maryland.

[90] We administered the CBCL 2/3 detailed in: Achenbach, T. (1994). *Manual for the Child Behavior Checklist 2/3 and 1992 Profile*. Burlington, VT: University of Vermont, Department of Psychiatry. Normative samples and scores are detailed in: Achenbach, T., Edelbrookm, C. & Howell, C. (1987). Empirically based assessment of the behavioral/emotional problems of 2-3 year old children. *Journal of Abnormal Child Psychology*, 15, 629-650.

[91] We also re-administered, at wave 2, a picture adaptation of the MacArthur Communicative Development Inventory for the younger cohort who participated in this assessment at wave 1.

[92] Identical to the Connecticut analysis, "recent work experience" refers to having worked during any period in the 12 months prior to entering the state's new welfare-to-work program. Thus, women with "no recent work experience" held no wage earning jobs in the year prior to entry.

[93] As with the Connecticut analysis, mean differences or regression coefficients that we label as "statistically significant" display significance at $p<.05$ or stronger. Differences labeled "marginally significant" are at $p<.10$.

[94] Note that all wave 1 to wave 2 comparisons are for matched samples of mothers with complete data, as with the Connecticut analyses. Exact sample sizes appear in the figures.

[95] Morris, P.A., Huston, A.C., Duncan, G.J., Crosby, D.A., & Bos, J. (2001). *How Welfare and Work Policies Affect Children: A Synthesis of Research*. New York: Manpower Demonstration Research Corporation. In Connecticut, 58% of the control-group mothers were employed four years after random assignment (see Section 4 above).

[96] Hours worked weekly rose for San Jose mothers from 18 to 35 between waves 1 and 2; 20 to 35 hours weekly in San Francisco; and 31 to 36 hours in Tampa.

[97] Bloom, D. et al. (2002). *Jobs First: Final Report on Connecticut's Welfare Reform Initiative*.

[98] Families must have one member who is employed and earning less than about twice the poverty level. The EITC credit, typically refunded after filing a tax return, averaged $1,677 among families in Los Angeles County, $1,600 among families in New York City, in 1998. See Berube, A. & Forman, B. (2001). A local ladder for the working poor: The impact of the earned income tax credit in U.S. metropolitan areas. Washington DC: Brookings Institution, Center for Urban and Metropolitan Policy.

[99] McLoyd, V. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. *Child Development*, 61, 311-346. Fuller, B., Caspary, G., Kagan, S.L., et al. (2001). Does maternal employment influence poor children's social development?

[100] Nord, M., Jamison, K., & Bickel, G. (1999). Prevalence of food insecurity and hunger, 1996-1998. Washington DC: U.S. Department of Agriculture.

[101] Klerman, J., Zellman, G., & Steinberg, P. (2001). *Welfare Reform in California: State and County Implementation of CalWORKs in the Second Year.* Santa Monica: Rand Corporation.

[102] This issue is detailed in Bloom et al. (2002). *Jobs First: Final Report on Connecticut's Welfare Reform Initiative.*

[103] In raw numbers, this equals 234 of the 452 mothers in the combined California and Florida sample.

[104] This long running debate was summarized recently in: Mayer, S. (1997). *What Money Can't Buy: Family Income and Children's Life Chances.* Cambridge, MA: Harvard University Press.

[105] For reviews of these two literatures, see: Gelfand, D., & Teti, D. (1990). The effects of maternal depression on children. *Clinical Psychology Review*, 10, 329-353. Liang, X., Fuller, B., & Singer, J. (2000). Fuller, Caspary, Kagan et al. (in press).

[106] For example, see: Brooks-Gunn, J., Duncan, G.J., & Aber, J.L. (1997). *Neighborhood Poverty: Context and Consequences for Children*, vol. 1. New York: Russell Sage Foundation. Furstenberg, Jr., F., Cook, T., Eccles, J., Elder, Jr., G., & Sameroff, A. (1999). *Managing to Make It: Urban Families and Adolescent Success.* Chicago: University of Chicago Press. Jargowsky, P. (1997). *Poverty and Place: Ghettos, Barrios, and the American City.* New York: Russell Sage Foundation.

[107] Gordon, R., & Chase-Lansdale, L. (2001). Availability of child care in the United States: A description and analysis of data sources. *Demography*, 38, 299-316. Fuller, B., & Strath, A. (2001). The child care and preschool workforce: Demographics, earnings, and unequal distribution. *Educational Evaluation and Policy Analysis*, 23, 37-55.

[108] Sampson, R., Morenoff, J., & Earls, F. (1999). Beyond social capital: Spatial dynamics of collective efficacy for children.

[109] The wave 1 report, *Remember the Children*, includes county maps with the locations of all sampled families.

[110] Inter-item reliability coefficients (Cronbach alphas) equaled .95 and .96, respectively, indicating high internal consistency across interview questions.

[111] These differences did not reach statistical significance, in part, due to the reduction in cases when we focus only on those that moved in the prior year.

[112] With 2000 census data becoming available at the census track level, we will be able to examine these perceptual measures against objective indicators.

[113] For reviews, see: Hess, R., & Holloway, S. (1984). Family and school as educational institutions. In R. Parke (ed.) *Review of Child Development Research*, vol. 7. Chicago: University of Chicago Press. NICHD Early Child Care Network (1998). Relations between family predictors and child outcomes: Are they weaker for children in child care? *Developmental Psychology*, 34, 1119-1128.

[114] Caldwell, B., & Bradley, R. (1978). *Administration Manual: Home Observation for Measurement of the Environment.* Little Rock: University of Arkansas. Bradley, R. (1993). Children's home environments, health, behavior, and intervention efforts: A review using the HOME inventory as a marker measure. *Genetic, Social, and General Psychology Monographs*, 119, 439-490.

[115] In one multivariate model, we regressed the number of children's books available in the home (at the wave 2 interview) on child's age, mother's education level, and reported change in time spent with the focal child. This confirmed that the latter predictor is *negatively* associated with availability of children's books. That is, mothers who reported spending less time with their child in the prior year, at wave 2, also reported more children's book in the household.

[116] For reviews, see Burchinal, M. (1999). Child care experiences and developmental outcomes. In S.Helburn (Ed.), The silent crisis in U.S. child care. *Annals of the American Academy of Political and Social Science, vol. 563* (Pp. 73-97). Fuller, B., Holloway, S., & Liang, X. (1996). Family selection of child-care centers: The influence of household support, ethnicity, and parental practices. *Child Development*, 67, 3320-3337.

[117] Exploratory multivariate models confirmed that maternal education is significantly related to reading frequency and reported number of children's books, after taking into account child age. In addition, the mother's language and cognitive proficiency (PPVT score) and home language are significant predictors, even after taking into account maternal education. The mother's prior work experience is not a significant predictor of reading related behaviors.

[118] Checking for sensitivity to children's age involved an analysis of standardized residuals, obtained by regressing the mother-child measure on child age, then analyzing subgroup or longitudinal wave differences with t-tests or oneway analysis of variance. These age adjusted analyses were run for all measures that were presumably sensitive to children's aging.

[119] This index was made-up of four items, including [focal child] "smiles at me more than I expected"; "does things for me that make be feel good"; "rarely giggles or laughs"; and "does things that bother me just to be mean." The inter-item reliability coefficient (Cronbach's alpha) equaled .70. This index did not change significantly between waves 1 and 2.

[120] For example, see Idler, E., & Angel, R. (1990). Self-rated health and mortality in the NHANES-I epidemiologic follow-up study. *American Journal of Public Health*, 80, 446-452.

[121] See the wave 1 GUP Project paper: Fuller, B., Caspary, G., Kagan, S.L., et al. (in press). Does maternal employment influence poor children's social development? For earlier work on depression and child development, see: Gelfand, D., Teti, D. (1990). The effects of maternal depression on children. *Clinical Psychology Review*, 10, 329-353. McLoyd, V. (1990). The impact of economic hardship on black families and children.

[122] McDowell, I., & Newell, C. (1996). *Measuring Health: A Guide to Rating Scales and Questionnaires*, second edition. New York: Oxford University Press. The CES-D was used at wave 2 in Connecticut but not at wave 1, due to constraints in interview time.

[123] Radloff, L., &Locke, B. (1986). The community mental health assessment survey and the CES-D scale. In M. Weissman, J. Myers, & C. Ross, eds., *Community Surveys of Psychiatric Disorders*. New Brunswick, NJ: Rutgers University Press.

[124] The index consists of four individual social support questions, including the ease with which the mother can find someone to care for her if she needs to run an errand, frequency of seeing kin members, feels alone or sufficient support as a parent. The inter-item reliability (Cronbach's alpha) for this index equaled .72.

[125] An additional working paper also was completed that detailed the quality of child care settings in the two California sites, and additional estimates of subsidy utilization: Fuller, B., Chang, Y., Suzuki, S., & Kagan, S.L. (2001). Child care aid and quality for California families: Focusing on San Francisco and Santa Clara counties. Berkeley: University of California, PACE research center. See inside back cover for related papers.

[126] Keep in mind that at wave 1 the focal children were young, 2½ years old on average.

[127] Across a nationally representative sample of families with a working mother, the share of children attending a center or preschool program rose from 27% among 1-2 year-olds, to 50% among 3-4 year-olds in 1995. Smith, K. (2000). Who's minding the kids? Child care arrangement. Washington DC: United States Census Bureau (Household Economic Studies, P70-70).

[128] For review of patterns for low-income families, see: Fuller, B., Kagan, S.L., Caspary, G., & Gauthier, C. (2002). Child care options and welfare reform. *Future of Children*, February. Qualitative evidence on how low-income mothers view child care options appears in: Holloway, S., Fuller, B., Rambaud, M., & Eggers-Pierola, C. (1997). *Through My Own Eyes: Single Mothers and the Cultures of Poverty*.

[129] These figures exclude the few children who had started kindergarten.

[130] This analysis sets aside the children who were not in a child care setting at least 10 hours a week. Of the full California and Florida sample, 375 reported using a child care provider at wave 2.

[131] For details on policy changes and expanded spending on child care, see Fuller, B., Kagan, S.L., Caspary, G., & Gauthier, C. (2002). Welfare reform and child care options for low-income families, *Future of Children*, 12, 97-119, David and Lucile Packard Foundation.

[132] One advantage of directly interviewing mothers is that they report all forms of subsidized care, including Head Start, state preschool and center-based programs, and child care vouchers that might be obtained outside county welfare offices. Administrative data on subsidy utilization tends to under count these various subsidy streams.

[133] Estimating take-up rates over time is a slippery task. Two cautionary notes should be kept in mind. First, these estimates are based on mothers who were using child care when interviewed. This number becomes the denominator, with the numerator being the count of women who reported not paying for their child care and not using cost-free kith or kin arrangements. An unknown number of women in the denominator were not eligible for child care aid if they were not meeting work or reporting requirements, or if their income rose to levels that made them ineligible for child care assistance. We have to assume that this unknown proportion is roughly equal at wave 1 and wave 2. If the share of women using child care but ineligible for aid changes, then our estimated utilization rates can not be reliably compared across time. Second, we added two questions at wave 2 to be sure that we did not miss any women who were drawing a subsidy that were not filtered-in at wave 1. We asked about vouchers more specifically, and we asked about co-payments. Either question could have prompted a few mothers to indicate subsidy support. We did not see substantial numbers of new responses, but it's difficult to be certain whether these prompts encouraged subsidy responses later in the interview

[134] Carroll, J. (2001). How to pay for child care? Local innovations help working families.

[135] At wave 2 just 47 of the 375 mothers using child care had selected a family child care home, making site-specific estimates less reliable. Overall, however, 95% of the mothers using child care homes were drawing a subsidy.

[136] We increased the child care payment and subsidy questions in the wave 2 interview, allowing us to learn more about co-payments and mothers' understanding of voucher mechanisms.

[137] See inside back cover for a listing of project working papers on this topic of neighborhood supply and its relationship to low-income mothers' child care selection. Fuller, B., Kagan, S.L., Gascue, L., et al. (2002). Explaining family demand for early education: Ethnicity, social support, and neighborhood organization.

[138] The flow of child care subsidies to TANF families appears to be short lived in some states, as suggested by our analysis in section 4 of the Connecticut child care subsidy data. Similar results emerged from an analysis by Marcia Meyers and colleagues, drawing on subsidy duration data from Illinois, Maryland, Massachusetts, Oregon, and Texas. Our findings suggest that the duration of time with a given provider may commonly exceed the portion of months or years that are covered by welfare-related subsidies. Meyers, M., Peck, L., Collins, A., Kreader, J.L., & Georges, A. (2001). The dynamics of child care subsidy use: A collaborative study of five states. Washington DC: National Institute of Child Health and Human Development and Cornell University conference on welfare reform and children (May).

[139] For national data from the NHES, see: Zill, N., Collins, M., West, J., & Hauksen, E. (1995). Approaching Kindergarten: A Look at Preschools in the United States. The direct assessment of story book familiarity and comprehension is from the Head Start Family and Child Experience Survey (FACES), developed by Gary Resnick at Westat Inc., Rockville, Maryland.

[140] We administered the CBCL 2/3: Achenbach, T. (1994). *Manual for the Child Behavior Checklist 2/3 and 1992 Profile*.

[141] We also re-administered, at wave 2, a picture adaptation of the MacArthur Communicative Development Inventory for the younger cohort who participated at wave 1.

[142] Scores on sampled children enrolled in Head Start programs appear in Appendix 2.

[143] Given that children at wave 1 could be up to 42 months old, we did have a ceiling effect for the word usage subscale, primarily for the older cohort. That is, that particular subscale proved to be insufficiently challenging for these older children. Yet when we combine this subscale with the others, then standardize composite scores and combine age groups, we observe a more normal distribution in scores.

[144] At wave 1 we also administered a picture version of the MacArthur word recognition and usage subscales. These data are not included in our composite indices.

[145] The ceiling effect was not apparent in all four subscales of the CDI, so it is modest in our overall composite index. For a detailed analysis, see the wave 1 technical report, Fuller, B., Kagan, S.K., et al. (2000). *Remember the Children.*

[146] These two subscales from the FACES storybook assessment—the child's basic familiarity with the structure of children's books and story comprehension—were correlated at .50 at wave 2.

[147] If we did not observe this predictive power from our wave 1 CDI scores, concern over measurement error would have been real. The descriptive patterns observed in the cognitive growth trajectories (in Figure 5.54) could have been explained by imprecise measurement at wave 1. The consistent relationship between wave 1 (CDI) and wave 2 (Bracken and school readiness composites) child measures mitigates against this alternative explanation for the descriptive results.

[148] Entering maternal education level as a predictor yields very similar results, in part because PPVT scores and education level substitute for one another as predictors.

[149] Levine Coley, R., Chase-Lansdale, P.L., and Li-Grining, C., (2001). Child care in the era of welfare reform: Quality, choices, and preferences. Welfare, Children and Families: A Three-City Study. Baltimore: Johns Hopkins University (policy brief 01-4).

[150] The NICHD study of early child care recently reported slightly higher levels of behavioral problems for one segment of their largely middle-class sample of children that spent more time in centers. We found no such relationship for our sample of children from low-income families. See: NICHD study team (2001). Type of child care and children's development at 54 months. Bethesda, MD: National Institute of Child Health and Human Development (working paper).

APPENDIX 1

Appendix Table 1. Topics and measures—maternal interviews, child care observations, mother and child assessments[1]

Topic and construct	Maternal interviews and assessments	Child care observations	Child assessments	Wave 1	Wave 2
1. Employment, income, and welfare participation					
Current employment and employment history	◆			◆	◆
Informal employment, child care related employment	◆			◆	◆
Number of jobs and job quality, perceptions of different facets	◆				◆
Irregular hours, shifts, and weekly changes in work schedule	◆			◆	◆
Part-time jobs and reasons for working part-time	◆				◆
Earnings	◆			◆	◆
Transport to work	◆			◆	◆
Child care problems related to employment	◆			◆	◆
Job search behaviors	◆			◆	◆
Reasons for exiting recent job or not entering labor force	◆			◆	◆
Perception of economic stability and security	◆				◆
Participation in education or training programs [prior 12 months]	◆			◆	◆
Additional sources of income for mother and other adults in household	◆			◆	◆
Income from other adults that aids focal child	◆			◆	◆
Welfare [TANF cash aid] status, currently and prior 12 months	◆			◆	◆
Reasons for leaving cash aid: time limits, sanctions, voluntary exit	◆			◆	◆
Total income, all sources	◆			◆	◆
Savings	◆			◆	◆
Tax returns and EITC filing	◆			◆	◆
Understanding of time limits, others who have hit time limit	◆				◆
Mother's reported behavioral changes as result of time limits	◆				◆
Mother's spending: housing, clothing, food, utility bills, transportation	◆			◆	◆
Public housing	◆			◆	◆
Changing households and social composition, improvement in neighborhood quality	◆				◆
2. Households, marriage, social support, and neighborhoods					
Household composition	◆			◆	◆
Marital status and history	◆			◆	◆
Births and pregnancy	◆			◆	◆
Ethnic background, birthplace	◆			◆	◆
Language spoken at home	◆			◆	◆

Topic and construct	Maternal interviews and assessments	Child care observations	Child assessments	Wave 1	Wave 2
Multiple measures of social support: other adults give gifts to child; provide rides; available for child care on short notice; listens to mother when upset	◆			◆	◆
Presence of a "co-caregiver" who spends significant time with focal child	◆			◆	◆
Feeling of being alone as a parent, or received sufficient aid from others	◆			◆	◆
Frequency of seeing relatives	◆			◆	◆
Ways of disciplining the focal child	◆			◆	◆
Frequency of spanking or hitting the focal child	◆			◆	◆
Housing conditions and multiple indicators of instability or stress linked to housing problems	◆			◆	◆
Safety or dangers in the neighborhood	◆			◆	◆
Caring adults and child-friendliness of neighborhood	◆				◆
3. Home environments: Time with child, practices, family functioning and stress, affection and emotional rewards					
Time with other adults	◆			◆	◆
Time spent with children	◆				◆
Conflict and tension among adults	◆			◆	◆
Sources of insecurity and stress inside the home	◆			◆	◆
Stress related to focal child and other children in household	◆			◆	◆
Pro-development parenting activities: story telling, singing, dancing, reading together, visits to library (HOME items)	◆			◆	◆
Affection toward and emotional rewards from the focal child	◆			◆	◆
Perceived coping with the challenges of child rearing	◆			◆	◆
Count of children's books; other adults who buy books for focal child	◆			◆	◆
Mother's own reading behavior	◆			◆	◆
Television viewing on weekdays and weekends	◆			◆	◆
Setting regular bedtimes and meal times	◆			◆	◆
Mother's perception of child's developmental pace	◆			◆	◆
Mother's cognitive proficiencies: Peabody Picture Vocabulary Test (PPVT)	◆				◆
4. Maternal and child health					
Physical health indicators (mother and child)	◆			◆	◆
Mother's mental health (CES-D)	◆			◆	◆
Health problems related to employment	◆			◆	◆
Medicaid enrollment status and history	◆			◆	◆
Other forms of health insurance (employer provided)	◆			◆	◆

Topic and construct	Maternal interviews and assessments	Child care observations	Child assessments	Wave 1	Wave 2[1]
Visits to doctors, dentists, clinics, psychologists	◆			◆	◆
Child health problems that present barriers to play or school work	◆			◆	◆
Inventory of child's health problems	◆			◆	◆
Food insecurity and rationing (USDA index)	◆			◆	◆
Frequency of visits to food banks	◆			◆	◆
5. Child care – types, quality, organizational features, costs, and public subsidies					
Use of child care, hours in nonmaternal care	◆			◆	◆
Number and type of child care providers	◆			◆	◆
Location of home-based care	◆			◆	◆
Provider history, length of time with different caregivers	◆			◆	◆
Mothers' payments for child care	◆			◆	◆
Sources of public support of child care costs	◆			◆	◆
Co-payments for child care	◆			◆	◆
Information sources for child care and subsidy options	◆			◆	◆
Organizational features of the child care setting	◆			◆	◆
Trust, communication, individual attention related to the provider	◆			◆	◆
Convergent beliefs between mother and provider, language issues	◆			◆	◆
Use of R&R agencies and 800 numbers for information	◆			◆	◆
Underlying preference for type of child care	◆			◆	◆
Barriers to employment related to child care problems	◆			◆	◆
Child's feelings when dropped-off at child care	◆			◆	◆
Quality assessment measures:					
■ Early childhood environment rating scale (ECERS, FDCRS)		◆		◆	
■ Arnett social interaction scales		◆		◆	
■ Child-caregiver observation system (C-COS)		◆		◆	
■ Provider education levels and indicators from provider interview		◆		◆	
6. Children's early learning and social development					
MacArthur Communicative Development Inventory (CDI)			◆	◆	◆
Picture version of CDI for older toddlers and preschoolers			◆	◆	◆
Social problems/social development (Child Behavior Checklist)	◆			◆	◆
Mother reported pre-literacy, school readiness skills (NHES)	◆			◆	◆
Positive social behavior scale	◆				◆
Bracken Basic Concept Scale (Bracken)			◆		◆
Pre-literacy skills: story and print concepts (FACES scales)			◆		◆

Endnotes

[1] Excludes administrative data for Connecticut mothers related to employment, earnings, and welfare status.

APPENDIX 2

Comparing sampled mothers and children to national norms

Throughout the Technical Report we have detailed levels of change, or experimental and control differences, for participating families. Another way to gauge the well-being of mothers and children is to set their indicators in the context of larger national samples.

Endnotes include general incidence rates, for example, rates of maternal depression in the general population. In addition, Bracken cognitive proficiency scores for children can be expressed as national percentiles, as well as mothers' PPVT scores. Less is known about other measures, since they have not been administered to large national samples. Appendix 2 provides additional comparative data.

Reading Practices

Among participating mothers in the California and Florida sites, 43% reported reading with their child three or more times in a typical week. This compares to 69% of parents living below the poverty line and 85% of parents above the poverty line, interviewed in 1999 for the National Household Education Survey (NHES). The age range of children in the national survey, age 3-5 and not yet in kindergarten, matches closely to our GUP sample.

Children's Emergent Literacy Skills

At wave 2 we administered several measures to assess children's emerging literacy and school readiness skills. This included mother-reported measures that have been used in the NHES and the current evaluation of Head Start (FACES, as described in Section 3). In Appendix Table 2, we compare proficiency levels on individual items for GUP children, less than 3 years-old or 4 years-old, against the national sample of Head Start children of similar ages.

Participating GUP children, age 4, scored lower than Head Start children on two items. Among the GUP 4 year-olds, about 30% could count to 20 and roughly the same percentage could write their first name (averaging across the California-Florida and Connecticut samples). Whereas among Head Start children, also 4 years-old, 53% could count to 20 and 66% could write their first name. Among a nationally representative sample of 4 year-olds, drawn for the NHES in 1993, 62% could count to 20 and 70% could write their first name, as reported by their mother or father. These rates were 48% (counting to 20) and 54% (writing one's name) among children living below the poverty line.

Children's Behavioral and Emotional Problems

We can compare our sampled 4 year-olds on 13 items from the behavior problem scales (CBCL), administered with children of parents participating in the National Longitudinal Study of Youth (NLSY). On five items GUP mothers reported a higher incidence of emotional or behavioral problems for

Appendix Table 2. Children's emergent literacy—GUP sample and National Head Start sample

	GUP sample, 2000				National Head Start sample (FACES), 1998	
	California and Florida		Connecticut			
	<=3yrs	4yrs	<=3yrs	4yrs	<=3yrs	4yrs
Child counts to 20						
Percentage	0.14	0.33	0.23	0.29	0.34	0.53
Standard Deviation	0.35	0.47	0.43	0.45	0.48	0.50
Sample Size	111	266	26	157	724	1127
Writes and draws rather than scribbles						
Percentage	0.24	0.58	0.26	0.62	0.56	0.72
Standard Deviation	0.43	0.5	0.45	0.49	0.49	0.46
Sample Size	111	266	26	157	723	1124
Can write own first name						
Percentage	0.06	0.29	0.07	0.33	0.34	0.66
Standard Deviation	0.24	0.45	0.27	0.49	0.48	0.46
Sample Size	111	266	26	157	724	1128
Identifies primary colors by name						
Percentage	0.65	0.9	0.81	0.92	0.70	0.80
Standard Deviation	0.48	0.3	0.4	0.28	0.47	0.40
Sample Size	110	266	27	157	723	1128

Appendix Table 3. GUP and NLSY children's scores on behavior problems (CBCL)

	GUP sample					
	California and Florida		Connecticut		NLSY	
	<=3yrs	4yrs	<=3yrs	4yrs	4yrs	5 & 6 yrs
Sample Size	N=112	N=265	N=27	N=157	N=225	N=231
CBCL Item **Scale 1=not true; 2=somewhat/ sometimes true; 3=very/often true**						
Can't concentrate, can't pay attention for long	1.65 (0.67)	1.68 (0.72)	1.7 (0.54)	1.7 (0.68)	1.71 (0.64)	1.59 (0.66)
Can't sit still or is restless	2.02 (0.78)	1.96 (0.80)	2.29 (0.54)	1.97 (0.73)	1.85 (0.71)	1.75 (0.70)
Cries a lot	1.65 (0.73)	1.48 (0.67)	1.56 (0.64)	1.59 (0.71)	1.44 (0.64)	1.39 (0.58)
Destroys (his/her) own things	1.5 (0.75)	1.63 (0.78)	1.7 (0.78)	1.5 (0.70)	1.23 (0.45)	1.14 (0.36)
Destroys things belonging to family or other children	1.38 (0.63)	1.48 (0.69)	1.67 (0.83)	1.44 (0.70)	1.23 (0.45)	1.14 (0.36)
Is disobedient	1.58 (0.58)	1.71 (0.63)	1.81 (0.62)	1.66 (0.64)	1.77 (0.53)	1.61 (0.56)
Doesn't get along with other children	1.28 (0.45)	1.24 (0.51)	1.19 (0.40)	1.21 (0.46)	1.28 (0.49)	1.21 (0.46)
Doesn't seem to feel guilty after misbehaving	1.82 (0.81)	1.68 (0.74)	1.81 (0.79)	1.83 (0.82)	1.48 (0.66)	1.44 (0.68)
Is nervous, high strung or tense	1.27 (0.54)	1.29 (0.56)	1.22 (0.51)	1.2 (0.47)	1.38 (0.58)	1.32 (0.55)
Is stubborn, sullen, or irritable	1.89 (0.73)	1.9 (0.74)	2.04 (0.76)	1.82 (0.67)	1.74 (0.65)	1.65 (0.64)
Has sudden changes in mood or feelings	1.63 (0.71)	1.7 (0.71)	1.74 (0.76)	1.55 (0.67)	1.79 (0.65)	1.72 (0.56)
Has temper tantrums or a hot temper	1.83 (0.76)	1.77 (0.78)	2.29 (0.82)	1.83 (0.71)	1.61 (0.67)	1.53 (0.64)
Wants a lot of attention	2.51 (0.74)	2.4 (0.74)	2.67 (0.48)	2.35 (0.68)	1.9 (0.68)	1.8 (0.67)

their 4 year-olds, compared to the more middle-class, nationally representative NLSY sample. GUP children reportedly displayed more destructive behavior (of toys and other objects belonging to themselves or others), stubborn or irritable behavior, demanded "a lot of attention," and did not "appear guilty after misbehaving," compared to the broader national sample.

Hunger and Food Rationing

We used several items from the U.S. Department of Agriculture's standard measure of food insecurity and hunger. Section 5A reports on two items, comparing levels reported by GUP project mothers to incidence levels in the general population.

For a complete discussion of the USDA index and normative levels, see: Nord, M. et al. (2002). Household food security in the United States, 2000. Washington DC: USDA, Food Assistance and Nutrition Research Report, no. 21.

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Additional papers from the Growing Up in Poverty Project

Fuller, B., Kagan, S.L. et al. (2000). *Remember the Children: Mothers Balance Work and Child Care under Welfare Reform*. Berkeley: University of California and Yale University.

Fuller, B., Caspary, G., Kagan, S.L. et al. (2001). Does maternal employment influence poor children's social development. Berkeley: University of California (working paper).

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Mensing, J., French, D., Fuller, B., and Kagan, S.L. (2000). Child care selection under welfare reform: How mothers balance work requirements and parenting. *Early Education and Development*, 11, 573-596.

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